CONTENTS OF VOLUME 37

Number 1

Full Papers

EILA VARJO, ANU LIIKANEN, VELI-PEKKA SALONEN and PERTTI J. MARTIKAINEN	1	A new gypsum-based technique to reduce methane and phophorus release from sediments of eutrophied lakes: (Gypsum treatment to reduce internal loading)
SÉBASTIEN SABY, MALIK DJAFER and GUANG-HAO CHEN	11	Effect of low ORP in anoxic sludge zone on excess sludge production in oxic-settling-anoxic activated sludge process
TSAIR-FUH LIN, CHIA-LING LIU, FENG-CHEN YANG and HSU-WEN HUNG	21	Effect of residual chlorine on the analysis of geosmin, 2-MIB and MTBE in drinking water using the SPME technique
C.M. KAO, S.C. CHEN, J.Y. WANG, Y.L. CHEN and S.Z. LEE	27	Remediation of PCE-contaminated aquifer by an in situ two-layer biobarrier: laboratory batch and column studies
W. CHU and M.H. CHING	39	Modeling the ozonation of 2,4-dichlorophoxyacetic acid through a kinetic approach
PETER M. OATES, PETER SHANAHAN and MARTIN F. POLZ	47	Solar disinfection (SODIS): simulation of solar radiation for global assessment and application for point-of-use water treatment in Haiti
HAN QING YU and HERBERT H.P. FANG	55	Acidogenesis of gelatin-rich wastewater in an upflow anaerobic reactor: influence of pH and temperature
VINOD TARE, AJAY VEER SINGH YADAV and PURNENDU BOSE	67	Analysis of photosynthetic activity in the most polluted stretch of river Ganga
E. VESCHETTI, D. CUTILLI, L. BONADONNA, R. BRIANCESCO, C. MARTINI, G. CECCHINI, P. ANASTASI and M. OTTAVIANI	78	Pilot-plant comparative study of peracetic acid and sodium hypochlorite wastewater disinfection
W.C. CHEN, NI-BIN CHANG and JENG-CHUNG CHEN	95	Rough set-based hybrid fuzzy-neural controller design for industrial wastewater treatment
PHILIP W. AMOS and PAUL L. YOUNGER	108	Substrate characterisation for a subsurface reactive barrier to treat colliery spoil leachate
HANG-SIK SHIN and SEOK-TAE KANG	121	Characteristics and fates of soluble microbial products in ceramic membrane bioreactor at various sludge retention times
J.M. WILKINSON, J. HILL and J.P. HILLMAN	128	The accumulation of potentially toxic elements in edible body tissues of lambs grazing after a single application of sewage sludge
JOSEPH P. DIETRICH, HAKAN BAŞAĞAOĞLU, FRANK J. LOGE and TIMOTHY R. GINN	139	Preliminary assessment of transport processes influencing the penetration of chlorine into wastewater particles and the subsequent inactivation of particle-associated organisms
WATARU NISHIJIMA, FAHMI, TSUKASA MUKAIDANI and MITSUMASA OKADA	150	DOC removal by multi-stage ozonation-biological treatment
C.P. CHU, D.J. LEE and J.H. TAY	155	Gravitational sedimentation of flocculated waste activated sludge

MATTHEW J. DEMARCO, ARUP K. SENGUPTA and JOHN E. GREENLEAF	164	Arsenic removal using a polymeric/inorganic hybrid sorbent
NICK CHRISTOFI, ELENA ASPICHUETA, DAVID DALZELL, ALEJANDRO DE LA SOTA, JAVIER ETXEBARRIA, TERESA FERNANDES, MONICA GUTIERREZ, JOHN MORTON, URSULA OBST and PETER SCHMELLENKAMP	177	Congruence in the performance of model nitrifying activated sludge plants located in Germany, Scotland and Spain
LU-KWANG JU and PRAKASH B. NALLAGATLA	188	Monitoring and kinetic study of ammonia oxidation using dissolved oxygen electrode and NAD(P) H fluorometer
JOHN M. REGAN, GREGORY W. HARRINGTON, HÉLÈNE BARIBEAU, RICARDO DE LEON and DANIEL R. NOGUERA	197	Diversity of nitrifying bacteria in full-scale chloraminated distribution systems
JESS C. BROWN, VERNON L. SNOEYINK, LUTGARDE RASKIN and RICHARD LIN	206	The sensitivity of fixed-bed biological perchlorate removal to changes in operating conditions and water quality characteristics
MICHAEL BORST and ARIAMALAR SELVAKUMAR	215	Particle-associated microorganisms in stormwater runoff
M. KARA, H. YUZER, E. SABAH and M.S. CELIK	224	Adsorption of cobalt from aqueous solutions onto sepiolite
CHENGGEN XIE and HUA CUI	233	Detection of tannic acid at trace level in industrial wastewaters using a highly sensitive chemiluminescence method
Research note		
B. ANTIZAR-LADISLAO and N.I. GALIL	238	Simulation of bioremediation of chlorophenols in a sandy aquifer

Number 2

REID, ANTHONY C. EDWARDS, DAVID COOPER, ELAINE WILSON and BRIAN A. MCGAW	245	The quality of drinking water from private water supplies in Aberdeenshire, UK
A. H. KAKSONEN, M.-L. RIEKKOLA-VANHANEN and J. A. PUHAKKA	255	Optimization of metal sulphide precipitation in fluidized-bed treatment of acidic wastewater
JINZHANG GAO, XIAOYAN WANG, ZHONGAI HU, HUALING DENG, JINGGUO HOU, XIAOQUAN LU and JINGWAN KANG	267	Plasma degradation of dyes in water with contact glow discharge electrolysis
MATS ÅSTRÖM and NINA CORIN	273	Distribution of rare earth elements in anionic, cationic and particulate fractions in boreal humus-rich streams affected by acid sulphate soils
ANDRZEJ SZYMANSKI, BOGDAN WYRWAS and ZENON LUKASZEWSKI	281	Determination of non-ionic surfactants and their biotransformation by-products adsorbed on alive activated sludge
C. G. WHITELEY, J. E. BURGESS, X. MELAMANE, B. PLETSCHKE and P. D. ROSE	289	The enzymology of sludge solubilisation utilising sulphate-reducing systems: the properties of lipases
B. VOLESKY, J. WEBER and J. M. PARK	297	Continuous-flow metal biosorption in a regenerable *Sargassum* column
PÅL GUNDERSEN and EILIV STEINNES	307	Influence of pH and TOC concentration on Cu, Zn, Cd, and Al speciation in rivers
CLAYTON B. MAUGANS and AYDIN AKGERMAN	319	Catalytic wet oxidation of phenol in a trickle bed reactor over a Pt/TiO_2 catalyst
SANJEEVI RAJAGOPAL, GERARD VAN DER VELDE, MARINUS VAN DER GAAG and HENK A. JENNER	329	How effective is intermittent chlorination to control adult mussel fouling in cooling water systems?

KAREN L. POWELL, RICHARD G. TAYLOR, AIDAN A. CRONIN, MIKE H. BARRETT, STEVE PEDLEY, JANE SELLWOOD, SAM A. TROWSDALE and DAVID N. LERNER	339	Microbial contamination of two urban sandstone aquifers in the UK
G. R. POPHALI, S. N. KAUL and S. MATHUR	353	Influence of hydraulic shock loads and TDS on the performance of large-scale CETPs treating textile effluents in India
M. HAUSSARD, I. GABALLAH, N. KANARI, PH. DE DONATO, O. BARRÈS and F. VILLIERAS	362	Separation of hydrocarbons and lipid from water using treated bark
TOM C. SHIH, MEDHI WANGPAICHITR and MEL SUFFET	375	Evaluation of granular activated carbon technology for the removal of methyl tertiary butyl ether (MTBE) from drinking water
W. BORCHARD and P. JABLONSKI	386	The thermodynamic water retention capacity of solutions and gels
GOLOKA BEHARI SAHOO and DAVID LUKETINA	393	Modeling of bubble plume design and oxygen transfer for reservoir restoration
DEOK-HEE CHO, SUNG-HO KONG and SEONG-GEUN OH	402	Analysis of trihalomethanes in drinking water using head-space-SPME technique with gas chromatography
THONGCHAI PANSWAD, APIRADEE DOUNGCHAI and JIN ANOTAI	409	Temperature effect on microbial community of enhanced biological phosphorus removal system
PEI HONGPING and WANG YONG	416	Eutrophication research of West Lake, Hangzhou, China: modeling under uncertainty
A. ABUSAM, K. J. KEESMAN and G. VAN STRATEN	429	Forward and backward uncertainty propagation: an oxidation ditch modelling example
GAYATHRI B. SEETHARAM and BRADLEY A. SAVILLE	436	Degradation of phenol using tyrosinase immobilized on siliceous supports
SHARON LAFFERTY DOTY, TANYA QING SHANG, ANGELA M. WILSON, ALLISON LEIGH MOORE, LEE A. NEWMAN, STUART EDWARD STRAND and MILTON PAUL GORDON	441	Metabolism of the soil and groundwater contaminants, ethylene dibromide and trichloroethylene, by the tropical leguminous tree, *Leuceana leucocephala*
SHEN-YI CHEN, YING-CHIH CHIU, PEI-LIN CHANG and JIH-GAW LIN	450	Assessment of recoverable forms of sulfur particles used in bioleaching of contaminated sediments
D. W. CONNELL, C. N. FUNG, T. B. MINH, S. TANABE, P. K. S. LAM, B. S. F. WONG, M. H. W. LAM, L. C. WONG, R. S. S. WU and B. J. RICHARDSON	459	Risk to breeding success of fish-eating Ardeids due to persistent organic contaminants in Hong Kong: evidence from organochlorine compounds in eggs
YOSHICHIKA HIRAHARA, HITOSHI UENO and KATSUHIKO NAKAMURO	468	Aqueous photodegradation of fenthion by ultraviolet B irradiation: contribution of singlet oxygen in photodegradation and photochemical hydrolysis

Number 3

T. KÄLLQVIST and A. SVENSON	477	Assessment of ammonia toxicity in tests with the microalga, *Nephroselmis pyriformis*, Chlorophyta
A. MOSQUERA-CORRAL, A. MONTRÀS, J.J. HEIJNEN and M.C.M. VAN LOOSDRECHT	485	Degradation of polymers in a biofilm airlift suspension reactor
S. FASS, J.C. BLOCK, M. BOUALAM, V. GAUTHIER, D. GATEL, J. CAVARD, S. BENABDALLAH and V. LAHOUSSINE	493	Release of organic matter in a discontinuously chlorinated drinking water network

Luigi Viganò, Attilio Arillo, Andrea Buffagni, Marina Camusso, Ruggero Ciannarella, Giuseppe Crosa, Carla Falugi, Silvana Galassi, Licia Guzzella, Antonio Lopez, Marina Mingazzini, Romano Pagnotta, Luisa Patrolecco, Gianni Tartari and Sara Valsecchi	501	Quality assessment of bed sediments of the Po River (Italy)
Kjetil Rasmussen and Kjetill Østgaard	519	Adhesion of the marine bacterium *Pseudomonas* sp. NCIMB 2021 to different hydrogel surfaces
K.P.H. Meesters, J.W. Van Groenestijn and J. Gerritse	525	Biofouling reduction in recirculating cooling systems through biofiltration of process water
O. Dangles and E. Chauvet	533	Effects of stream acidification on fungal biomass in decaying beech leaves and leaf palatability
Heather B. Runes, Jeffrey J. Jenkins, James A. Moore, Peter J. Bottomley and Bruce D. Wilson	539	Treatment of atrazine in nursery irrigation runoff by a constructed wetland
Sierra Rayne, Michael G. Ikonomou and MacMurray D. Whale	551	Anaerobic microbial and photochemical degradation of 4,4′-dibromodiphenyl ether
L. Wang, H. Chua, Q. Zhou, P.K. Wong, S.N. Sin, W.L. Lo and P.H. Yu	561	Role of cell surface components on Cu^{2+} adsorption by *Pseudomonas putida* 5-x isolated from electroplating effluent
Marcus Schulz, Hans-Peter Kozerski, Thomas Pluntke and Karina Rinke	569	The influence of macrophytes on sedimentation and nutrient retention in the lower River Spree (Germany)
Matthew M. Matlock, Brock S. Howerton, Michael Van Aelstyn, Kevin R. Henke and David A. Atwood	579	Soft metal preferences of 1,3-benzenediamidoethanethiol
J. Meier-Haack, N.A. Booker and T. Carroll	585	A permeability-controlled microfiltration membrane for reduced fouling in drinking water treatment
B.M. Steets and P.A. Holden	589	A mechanistic model of runoff-associated fecal coliform fate and transport through a coastal lagoon
Susanne Jonsson, Jörgen Ejlertsson, Anna Ledin, Ivo Mersiowsky and Bo H. Svensson	609	Mono- and diesters from *o*-phthalic acid in leachates from different European landfills
Eric P.M. Grist, Mark Crane, Claire Jones and Paul Whitehouse	618	Estimation of demographic toxicity through the double bootstrap
F. Pagnanelli, A. Esposito, L. Toro and F. Veglió	627	Metal speciation and pH effect on Pb, Cu, Zn and Cd biosorption onto *Sphaerotilus natans*: Langmuir-type empirical model
A. Papadopoulos, G. Parisopoulos, F. Papadopoulos and A. Karteris	634	Sludge accumulation pattern in an anaerobic pond under Mediterranean climatic conditions
Jakob Ottoson and Thor Axel Stenström	645	Faecal contamination of greywater and associated microbial risks
R. Rella, A. Sturaro, G. Parvoli, D. Ferrara and L. Doretti	656	An unusual and persistent contamination of drinking water by cutting oil
Yu Liu, Hai-Lou Xu, Shu-Fang Yang and Joo-Hwa Tay	661	Mechanisms and models for anaerobic granulation in upflow anaerobic sludge blanket reactor
Holger Brüggemann, Heinz Köser, Erich Meyer and Thang-Hoang Nguyen	674	Sonolytic debromination of ambroxol process wastewater
Wolfgang Rauch, Doris Brockmann, Irene Peters, Tove A. Larsen and Willi Gujer	681	Combining urine separation with waste design: an analysis using a stochastic model for urine production
Jari Koivunen, Anja Siitonen and Helvi Heinonen-Tanski	690	Elimination of enteric bacteria in biological–chemical wastewater treatment and tertiary filtration units
Frederik Hammes, Arsène Seka, Stefaan de Knijf and Willy Verstraete	699	A novel approach to calcium removal from calcium-rich industrial wastewater

CYNTHIA MURRAY-GULDE, JOHN E. HEATLEY, TANJU KARANFIL, JOHN H. RODGERS JR. and JAMES E. MYERS 705 Performance of a hybrid reverse osmosis-constructed wetland treatment system for brackish oil field produced water

HYUNG SOOL LEE, CHANG GYUN KIM and TAI IL YOON 715 Comment on "the interaction of humic substances with cationic polyelectrolytes"

SANG-KYU KAM and JOHN GREGORY 717 Reply to comment on the interaction of humic substances with cationic polyelectrolytes

Number 4

Full Papers

M.F. SOTO-JIMENEZ, F. PAEZ-OSUNA and H. BOJORQUEZ-LEYVA 719 Nutrient cycling at the sediment–water interface and in sediments at Chiricahueto marsh: a subtropical ecosystem associated with agricultural land uses

M. GHOUL, M. BACQUET and M. MORCELLET 729 Uptake of heavy metals from synthetic aqueous solutions using modified PEI—silica gels

ALBERTO ZAFRA, MONSALUD DEL OLMO, BEATRIZ SUÁREZ, ERNESTO HONTORIA, ALBERTO NAVALÓN and JOSÉ LUÍS VÍLCHEZ 735 Gas chromatographic–mass spectrometric method for the determination of bisphenol A and its chlorinated derivatives in urban wastewater

CHUNG-HSIN WU, CHENG-FANG LIN, HWONG-WEN MA and TING-QWET HSI 743 Effect of fulvic acid on the sorption of Cu and Pb onto γ-Al_2O_3

DAVID M. QUANRUD, SEAN M. CARROLL, CHARLES P. GERBA and ROBERT G. ARNOLD 753 Virus removal during simulated soil-aquifer treatment

S. NETPRADIT, P. THIRAVETYAN and S. TOWPRAYOON 763 Application of 'waste' metal hydroxide sludge for adsorption of azo reactive dyes

QILIN LI, VERNON L. SNOEYINK, BENITO J. MARIÑAS and CARLOS CAMPOS 773 Elucidating competitive adsorption mechanisms of atrazine and NOM using model compounds

GORDON C.C. YANG, TSUNG-YIN YANG and SHIOU-HUEI TSAI 785 Crossflow electro-microfiltration of oxide-CMP wastewater

SHIOW SHYUNG LIN, DONG JANG CHANG, CHING-HUEI WANG and CHIA CHRN CHEN 793 Catalytic wet air oxidation of phenol by CeO_2 catalyst—effect of reaction conditions

INKE SCHAUSER, JÖRG LEWANDOWSKI and MICHAEL HUPFER 801 Decision support for the selection of an appropriate in-lake measure to influence the phosphorus retention in sediments

H. AKCAY, A. OGUZ and C. KARAPIRE 813 Study of heavy metal pollution and speciation in Buyak Menderes and Gediz river sediments

YING OUYANG 823 Simulating dynamic load of naturally occurring TOC from watershed into a river

MATTHEW A. LARSON and BENITO J. MARIÑAS 833 Inactivation of *Bacillus subtilis* spores with ozone and monochloramine

RUEY-SHIN JUANG and YI-CHIEH WANG 845 Use of complexing agents for effective ion-exchange separation of Co(II)/Ni(II) from aqueous solutions

BENEDEK GY. PLÓSZ, ANDREA JOBBÁGY and C.P. LESLIE GRADY JR. 853 Factors influencing deterioration of denitrification by oxygen entering an anoxic reactor through the surface

RIINA LIIKANEN, ILKKA MIETTINEN and RISTO LAUKKANEN 864 Selection of NF membrane to improve quality of chemically treated surface water

Rajat K. Chakraborti, Kevin H. Gardner, Joseph F. Atkinson and John E. Van Benschoten	873	Changes in fractal dimension during aggregation
Ian McBeth, Katta J. Reddy and Quentin D. Skinner	884	Chemistry of trace elements in coalbed methane product water
Ramesh K. Goel, Joseph R.V. Flora and John Ferry	891	Mechanisms for naphthalene removal during electrolytic aeration
W. Fuchs, H. Binder, G. Mavrias and R. Braun	902	Anaerobic treatment of wastewater with high organic content using a stirred tank reactor coupled with a membrane filtration unit
Anne E. Bernhard, Thierry Goyard, Michael T. Simonich and Katharine G. Field	909	Application of a rapid method for identifying fecal pollution sources in a multi-use estuary
Normand Labbé, Serge Parent and Richard Villemur	914	Addition of trace metals increases denitrification rate in closed marine systems
Keith R. Hench, Gary K. Bissonnette, Alan J. Sexstone, Jerry G. Coleman, Keith Garbutt and Jeffrey G. Skousen	921	Fate of physical, chemical, and microbial contaminants in domestic wastewater following treatment by small constructed wetlands
Rita Carabias-Martìnez, Encarnación Rodríguez-Gonzalo, M. Esther Fernández-Laespada, Lorenzo Calvo-Seronero and Francisco Javier Sánchez-San Román	928	Evolution over time of the agricultural pollution of waters in an area of Salamanca and Zamora (Spain)
Daniel M. White, D. Sarah Garland, Jasprit Narr and Craig R. Woolard	939	Natural organic matter and DBP formation potential in Alaskan water supplies

Research notes

Ömer Yavuz, Yalçin Altunkaynak and Fuat Güzel	948	Removal of copper, nickel, cobalt and manganese from aqueous solution by kaolinite
C.M. Villanueva, M. Kogevinas and J.O. Grimalt	953	Haloacetic acids and trihalomethanes in finished drinking waters from heterogeneous sources

Number 5

Full papers

Anna Farkas, János Salánki and András Specziár	959	Age- and size-specific patterns of heavy metals in the organs of freshwater fish *Abramis brama* L. populating a low-contaminated site
H.K. Pant and K.R. Reddy	965	Potential internal loading of phosphorus in a wetland constructed in agricultural land
Jürgen von Sachs, Ulrich Meyer, Paul Rys and Heiko Feitkenhauer	973	New approach to control the methanogenic reactor of a two-phase anaerobic digestion system
Ki Beom Lee, Man Bock Gu and Seung-Hyeon Moon	983	Degradation of 2,4,6-trinitrotoluene by immobilized horseradish peroxidase and electrogenerated peroxide
Roberto Andreozzi, Vincenzo Caprio, Raffaele Marotta and Davide Vogna	993	Paracetamol *oxidation* from aqueous solutions by means of ozonation and H_2O_2/UV system
Magdalena Franska, Rafal Franski, Andrzej Szymanski and Zenon Lukaszewski	1005	A central fission pathway in alkylphenol ethoxylate biodegradation
Laodong Guo, Jaime K. Lehner, Daniel M. White and D. Sarah Garland	1015	Heterogeneity of natural organic matter from the Chena River, Alaska

Anja Kornmüller and Udo Wiesmann	1023	Ozonation of polycyclic aromatic hydrocarbons in oil/water-emulsions: mass transfer and reaction kinetics
P.N.L. Lens, R. Klijn, J.B. van Lier and G. Lettinga	1033	Effect of specific gas loading rate on thermophilic (55°C) acidifying (pH 6) and sulfate reducing granular sludge reactors
M. Arauzo	1048	Harmful effects of un-ionised ammonia on the zooplankton community in a deep waste treatment pond
M.J. Cerejeira, P. Viana, S. Batista, T. Pereira, E. Silva, M.J. Valério, A. Silva, M. Ferreira and A.M. Silva-Fernandes	1055	Pesticides in Portuguese surface and ground waters
Markku J. Lehtola, Ilkka T. Miettinen, Terttu Vartiainen, Panu Rantakokko, Arja Hirvonen and Pertti J. Martikainen	1064	Impact of UV disinfection on microbially available phosphorus, organic carbon, and microbial growth in drinking water
Torsten Pietsch, Ralf Mehrwald, Ralf Grajetzki, Jan Sens and Herbert Märkl	1071	Sedimentation behaviour of sludge particles in a biogas tower reactor and the function of a hydrostatically pressurized sedimenter
Jason C. Rushing, Laurie S. McNeill and Marc Edwards	1080	Some effects of aqueous silica on the corrosion of iron
Hong-Joo Lee, Suk-Jung Oh and Seung-Hyeon Moon	1091	Recovery of ammonium sulfate from fermentation waste by electrodialysis
Bernhard Wett and Wolfgang Rauch	1100	The role of inorganic carbon limitation in biological nitrogen removal of extremely ammonia concentrated wastewater
Bing-Mu Hsu and Hsuan-Hsien Yeh	1111	Removal of *Giardia* and *Cryptosporidium* in drinking water treatment: a pilot-scale study
Md. Zahangir Alam and A. Fakhru'l-Razi	1118	Enhanced settleability and dewaterability of fungal treated domestic wastewater sludge by liquid state bioconversion process
Alex H.C. Chan, Chak K. Chan, John P. Barford and John F. Porter	1125	Solar photocatalytic thin film cascade reactor for treatment of benzoic acid containing wastewater
Yasunori Tanji, Katsunori Mizoguchi, Masatoshi Yoichi, Masatomo Morita, Nobuyuki Kijima, Hiroyuki Kator and Hajime Unno	1136	Seasonal change and fate of coliphages infected to *Escherichia coli* O157:H7 in a wastewater treatment plant
Adrian A. Ammann, Eduard Hoehn and Sabine Koch	1143	Ground water pollution by roof runoff infiltration evidenced with multi-tracer experiments
Cezar Catrinescu, Carmen Teodosiu, Matei Macoveanu, Jocelyne Miehe-Brendlé and Ronan Le Dred	1154	Catalytic wet peroxide oxidation of phenol over Fe-exchanged pillared beidellite
A. Dąbrowska, J. Świetlik and J. Nawrocki	1161	Formation of aldehydes upon ClO_2 disinfection
Y. Kaçar, E. Alpay and V.K. Ceylan	1170	Pretreatment of Afyon alcaloide factory's wastewater by wet air oxidation (WAO)
J.A. López-Ramìrez, S. Sahuquillo, D. Sales and J.M. Quiroga	1177	Pre-treatment optimisation studies for secondary effluent reclamation with reverse osmosis
Zhu Shiyun, Zheng Xuesong, Li Daotang and Cai Weimin	1185	Ozonation of naphthalene sulfonic acids in aqueous solutions: Part II—Relationships of their COD, TOC removal and the frontier orbital energies
In-Joong Kang, Chung-Hak Lee and Kyu-Jin Kim	1192	Characteristics of microfiltration membranes in a membrane coupled sequencing batch reactor system

Number 6

Full papers

Yoon-Seok Hong and Rao Bhamidimarri	1199	Evolutionary self-organising modelling of a municipal wastewater treatment plant
Jian-Ying Hu and Takako Aizawa	1213	Quantitative structure–activity relationships for estrogen receptor binding affinity of phenolic chemicals
Dhananjay S. Bhatkhande, Vishwas G. Pangarkar and Anthony. A. C. M. Beenackers	1223	Photocatalytic degradation of nitrobenzene using titanium dioxide and concentrated solar radiation: chemical effects and scaleup
E. A. C. Emanuelsson, J.-P. Arcangeli and A. G. Livingston	1231	The anoxic extractive membrane bioreactor
C. Marazioti, M. Kornaros and G. Lyberatos	1239	Kinetic modeling of a mixed culture of *Pseudomonas Denitrificans* and *Bacillus subtilis* under aerobic and anoxic operating conditions
Stijn Wyffels, Kris Pynaert, Pascal Boeckx, Willy Verstraete and Oswald Van Cleemput	1252	Identification and quantification of nitrogen removal in a rotating biological contactor by ^{15}N tracer techniques
F. Alatriste-Mondragon, R. Iranpour and B.K. Ahring	1260	Toxicity of di-(2-ethylhexyl) phthalate on the anaerobic digestion of wastewater sludge
Miklas Scholz	1270	Performance predictions of mature experimental constructed wetlands which treat urban water receiving high loads of lead and copper
Jorge de Victorica and Matilde Galván	1278	Preliminary testing of a rapid coupled methodology for quantitation/viability determination of helminth eggs in raw and treated wastewater
Patrik Fauser, Jørgen Vikelsøe, Peter B. Sørensen and Lars Carlsen	1288	Phthalates, nonylphenols and LAS in an alternately operated wastewater treatment plant—fate modelling based on measured concentrations in wastewater and sludge
George Nakhla	1296	Biokinetic modeling of in situ bioremediation of BTX compounds —impact of process variables and scaleup implications
Zhimin Qiang, Jih-Hsing Chang and Chin-Pao Huang	1308	Electrochemical regeneration of Fe^{2+} in Fenton oxidation processes
René P. T. Janssen and Wilko Verweij	1320	Geochemistry of some rare earth elements in groundwater, Vierlingsbeek, The Netherlands
Magali Batté, Boniface Koudjonou, Patrick Laurent, Laurence Mathieu, Josée Coallier and Michèle Prévost	1351	Biofilm responses to ageing and to a high phosphate load in a bench-scale drinking water system
C. Bartie, S. N. Venter and L. H. Nel	1362	Identification methods for *Legionella* from environmental samples
G. Ruiz, D. Jeison and R. Chamy	1371	Nitrification with high nitrite accumulation for the treatment of wastewater with high ammonia concentration
Jörg H. Langwaldt and Jaakko A. Puhakka	1378	Competition for oxygen by iron and 2,4,6-trichlorophenol oxidizing bacteria in boreal groundwater
Sanna K. Marttinen, Riitta H. Kettunen, Kai M. Sormunen and Jukka A. Rintala	1385	Removal of bis(2-ethylhexyl) phthalate at a sewage treatment plant
E. D. Burton, D. W. Hawker and M. R. Redding	1394	Estimating sludge loadings to land based on trace metal sorption in soil: effect of dissolved organo-metallic complexes
M. Vainshtein, P. Kuschk, J. Mattusch, A. Vatsourina and A. Wiessner	1401	Model experiments on the microbial removal of chromium from contaminated groundwater
Shiow-Mey Liou, Shang-Lien Lo and Ching-Yao Hu	1406	Application of two-stage fuzzy set theory to river quality evaluation in Taiwan
Nikolaos P. Nikolaidis, Gregory M. Dobbs and Jeffrey A. Lackovic	1417	Arsenic removal by zero-valent iron: field, laboratory and modeling studies

P. JORDAN and B. RIPPEY 1426 Lake sedimentary evidence of phosphorus, iron and manganese mobilisation from intensively fertilised soils

C. GALLERT, A. HENNING and J. WINTER 1433 Scale-up of anaerobic digestion of the biowaste fraction from domestic wastes

Number 7

Reviews

URS VON GUNTEN 1443 Ozonation of drinking water: Part I. Oxidation kinetics and product formation

URS VON GUNTEN 1469 Ozonation of drinking water: Part II. Disinfection and by-product formation in presence of bromide, iodide or chlorine

Full Papers

A. DOBOSZ and A. SOBCZYŃSKI 1489 The influence of silver additives on titania photoactivity in the photooxidation of phenol

KUMIKO IKEDA and HISASHI YAMADA 1497 Changes in dietary bioaccumulation of tributyltin chloride (TBTCl) in red sea bream (*Pagrus major*) with the concentration in feed

BAHADIR K. KÖRBAHTI and ABDURRAHMAN TANYOLAÇ 1505 Continuous electrochemical treatment of phenolic wastewater in a tubular reactor

JONGHYUK SEOK and SIMEON J. KOMISAR 1515 Regulatory role of *n*-propanol in propylene glycol biomethanization under overload

MIN-WOONG RYOO and GON SEO 1527 Improvement in capacitive deionization function of activated carbon cloth by titania modification

QINGYE SUN and LINZHANG YANG 1535 The adsorption of basic dyes from aqueous solution on modified peat–resin particle

TOMOHITO KAMEDA, FUMIKO YABUUCHI, TOSHIAKI YOSHIOKA, MIHO UCHIDA and AKITSUGU OKUWAKI 1545 New method of treating dilute mineral acids using magnesium–aluminum oxide

KUAN-CHUN LEE and BRUCE E. RITTMANN 1551 Effects of pH and precipitation on autohydrogenotrophic denitrification using the hollow-fiber membrane-biofilm reactor

MARTINA M. DONNERMAIR and ERNEST R. BLATCHLEY III 1557 Disinfection efficacy of organic chloramines

PETER REUSCHENBACH, UDO PAGGA and UWE STROTMANN 1571 A critical comparison of respirometric biodegradation tests based on OECD 301 and related test methods

KATRIN TEUBNER 1583 Phytoplankton, pelagic community and nutrients in a deep oligotrophic alpine lake: ratios as sensitive indicators of the use of P-resources (DRP:DOP:PP and TN:TP:SRSi)

L. DUSSART, J.-P. DUPONT, I. ZIMMERLIN, M. LACROIX, J.M. SAITER, G.-A. JUNTER and T. JOUENNE 1593 Occurrence of sessile *Pseudomonas oryzihabitans* from a karstified chalk aquifer

J.M. CHIMENOS, A.I. FERNÁNDEZ, G. VILLALBA, M. SEGARRA, A. URRUTICOECHEA, B. ARTAZA and F. ESPIELL 1601 Removal of ammonium and phosphates from wastewater resulting from the process of cochineal extraction using MgO-containing by-product

YOON-SEOK TIMOTHY HONG, MICHAEL R. ROSEN and RAO BHAMIDIMARRI 1608 Analysis of a municipal wastewater treatment plant using a neural network-based pattern analysis

O. Abollino, M. Aceto, M. Malandrino, C. Sarzanini and E. Mentasti — 1619 — Adsorption of heavy metals on Na-montmorillonite. Effect of pH and organic substances

Shihwu Sung and Harikishan Santha — 1628 — Performance of temperature-phased anaerobic digestion (TPAD) system treating dairy cattle wastes

R.T. Noble, D.F. Moore, M.K. Leecaster, C.D. McGee and S.B. Weisberg — 1637 — Comparison of total coliform, fecal coliform, and enterococcus bacterial indicator response for ocean recreational water quality testing

Heather M. Lesan and Alok Bhandari — 1644 — Atrazine sorption on surface soils: time-dependent phase distribution and apparent desorption hysteresis

Shijin Ren and Paul D. Frymier — 1655 — Use of multidimensional scaling in the selection of wastewater toxicity test battery components

Deming Dong, Louis A. Derry and Leonard W. Lion — 1662 — Pb scavenging from a freshwater lake by Mn oxides in heterogeneous surface coating materials

Willi Gujer and Urs von Gunten — 1667 — A stochastic model of an ozonation reactor

Technical Note

S.H. Abdel-Halim, A.M.A. Shehata and M.F. El-Shahat — 1678 — Removal of lead ions from industrial waste water by different types of natural materials

Number 8

Full Papers

F.F. Reinthaler, J. Posch, G. Feierl, G. Wü st, D. Haas, G. Ruckenbauer, F. Mascher and E. Marth — 1685 — Antibiotic resistance of *E. coli* in sewage and sludge

Joost Lahr, Johanna L. Maas-Diepeveen, Suzanne C. Stuijfzand, Pim E.G. Leonards, Jeanette M. Drüke, Simone Lücker, Albert Espeldoorn, Lia C.M. Kerkum, Leo L.P. van Stee and A. Jan Hendriks — 1691 — Responses in sediment bioassays used in the Netherlands: can observed toxicity be explained by routinely monitored priority pollutants?

A. Fiandrino, Y. Martin, P. Got, J.L. Bonnefont and M. Troussellier — 1711 — Bacterial contamination of Mediterranean coastal seawater as affected by riverine inputs: simulation approach applied to a shellfish breeding area (Thau lagoon, France)

T.C. Jorgensen and L.R. Weatherley — 1723 — Ammonia removal from wastewater by ion exchange in the presence of organic contaminants

Tomohiro Kose, Tetsuo Mukai, Kazuto Takimoto and Mitsumasa Okada — 1729 — Effect of non-aqueous phase liquid on biodegradation of PAHs in spilled oil on tidal flat

Sebastian J. Interlandi and Christopher S. Crockett — 1737 — Recent water quality trends in the Schuylkill River, Pennsylvania, USA: a preliminary assessment of the relative influences of climate, river discharge and suburban development

Young-Seuk Park, Piet F.M. Verdonschot, Tae-Soo Chon and Sovan Lek — 1749 — Patterning and predicting aquatic macroinvertebrate diversities using artificial neural network

Lewis A. Molot and Peter J. Dillon — 1759 — Variation in iron, aluminum and dissolved organic carbon mass transfer coefficients in lakes

A.M. El-Kosasy, S.M. Riad, L.E. Abd El-Fattah and S. Abd El-Kader Ahmad — 1769 — Novel poly (vinyl chloride) matrix membrane electrodes for the determination of phenolic pollutants in waste water

E.D. Vega, J.C. Pedregosa, G.E. Narda and P.J. Morando	1776	Removal of oxovanadium(IV) from aqueous solutions by using commercial crystalline calcium hydroxyapatite
Gary L. Mills, J. Vaun McArthur and Charlotte P. Wolfe	1783	Lipid composition of suspended particulate matter (SPM) in a southeastern blackwater stream
S. Salem, D.H.J.G. Berends, J.J. Heijnen and M.C.M. Van Loosdrecht	1794	Bio-augmentation by nitrification with return sludge
Katarina D.M. Pintar and Robin M. Slawson	1805	Effect of temperature and disinfection strategies on ammonia-oxidizing bacteria in a bench-scale drinking water distribution system
Paul Westerhoff and Jennifer James	1818	Nitrate removal in zero-valent iron packed columns
Ilse Y. Smets, Jeroen V. Haegebaert, Ronald Carrette and Jan F. Van Impe	1831	Linearization of the activated sludge model ASM1 for fast and reliable predictions
Yusaku Miyake, Akiyoshi Sakoda, Hiroaki Yamanashi, Hirotaka Kaneda and Motoyuki Suzuki	1852	Activated carbon adsorption of trichloroethylene (TCE) vapor stripped from TCE-contaminated water
W. Scholz and M. Lucas	1859	Techno-economic evaluation of membrane filtration for the recovery and re-use of tanning chemicals
Şen and G.N. Demirer	1868	Anaerobic treatment of real textile wastewater with a fluidized bed reactor
Aysegul Latifoglu and Mirat D. Gurol	1879	The effect of humic acids on nitrobenzene oxidation by ozonation and O_3/UV processes
Connie D. DeMoyer, Erica L. Schierholz, John S. Gulliver and Steven C. Wilhelms	1890	Impact of bubble and free surface oxygen transfer on diffused aeration systems
J. Rivera-Utrilla, M.A. Ferro-García, I. Bautista-Toledo, C. Sánchez-Jiménez, F. Salvador and M.D. Merchán	1905	Regeneration of *ortho*-chlorophenol-exhausted activated carbons with liquid water at high pressure and temperature
Ingun Skjevrak, Anne Due, Karl Olav Gjerstad and Hallgeir Herikstad	1912	Volatile organic components migrating from plastic pipes (HDPE, PEX and PVC) into drinking water
Seong-Hoon Yoon	1921	Important operational parameters of membrane bioreactor-sludge disintegration (MBR-SD) system for zero excess sludge production
Murtuza A. Syed and Paul F. Henshaw	1932	Effect of tube size on performance of a fixed-film tubular bioreactor for conversion of hydrogen sulfide to elemental sulfur
Annie K.M. Fung, Brenda K.W. Chiu and Michael H.W. Lam	1939	Surface modification of TiO_2 by a ruthenium(II) polypyridyl complex via silyl-linkage for the sensitized photocatalytic degradation of carbon tetrachloride by visible irradiation
E. Naffrechoux, E. Combet, B. Fanget and C. Petrier	1948	Reduction of chloroform formation potential of humic acid by sonolysis and ultraviolet irradiation
Ulrich Krühne, Mogens Henze, Alain Larose, Anette Kolte-Olsen and Sten Bay Jørgensen	1953	Experimental and model assisted investigation of an operational strategy for the BPR under low influent concentrations

Rapid Communications

Kazutaka Suzuki, Hirofumi Hirai, Hitoshi Murata and Tomoaki Nishida	1972	Removal of estrogenic activities of 17β-estradiol and ethinylestradiol by ligninolytic enzymes from white rot fungi
Thomas A. Ternes, Jeannette Stüber, Nadine Herrmann, Derek McDowell, Achim Ried, Martin Kampmann and Bernhard Teiser	1976	Ozonation: a tool for removal of pharmaceuticals, contrast media and musk fragrances from wastewater?

Number 9

Full Papers

Philippe Eullaffroy and Guy Vernet	1983	The F684/F735 chlorophyll fluorescence ratio: a potential tool for rapid detection and determination of herbicide phytotoxicity in algae
Gilberte Gaval and Jean-Jacques Pernelle	1991	Impact of the repetition of oxygen deficiencies on the filamentous bacteria proliferation in activated sludge
Jaekyung Yoon, Yeomin Yoon, Gary Amy, Jaeweon Cho, David Foss and Tae-Hyung Kim	2001	Use of surfactant modified ultrafiltration for perchlorate (ClO_4-) removal
Jianrong Zhu and Peter A. Wilderer	2013	Effect of extended idle conditions on structure and activity of granular activated sludge
Ewa Poboży, Radoslav Halko, Marcin Krasowski, Tomasz Wierzbicki and Marek Trojanowicz	2019	Flow-injection sample preconcentration for ion-pair chromatography of trace metals in waters
J. Lapinski and A. Tunnacliffe	2027	Reduction of suspended biomass in municipal wastewater using bdelloid rotifers
Christian R. Steinmann, Sabine Weinhart and Arnulf Melzer	2035	A combined system of lagoon and constructed wetland for an effective wastewater treatment
Markus Schmid, Antoine Thill, Ulrike Purkhold, Marion Walcher, Jean Yves Bottero, Philippe Ginestet, Per Halkjær Nielsen, Stefan Wuertz and Michael Wagner	2043	Characterization of activated sludge flocs by confocal laser scanning microscopy and image analysis
Samir Kumar Khanal and Ju-Chang Huang	2053	ORP-based oxygenation for sulfide control in anaerobic treatment of high-sulfate wastewater
Dwight D. Bowman, M. Dale Little and Robert S. Reimers	2063	Precision and accuracy of an assay for detecting *Ascaris* eggs in various biosolid matrices
Liqiang Xie, Ping Xie, Sixin Li, Huijuan Tang and Hong Liu	2073	The low TN:TP ratio, a cause or a result of *Microcystis* blooms?
G.M. Walker, L. Hansen, J.-A. Hanna and S.J. Allen	2081	Kinetics of a reactive dye adsorption onto dolomitic sorbents
André Maes, Steven Vreysen and Nickolaj N. Rulyov	2090	Effect of various parameters on the ultraflocculation of fine sorbent particles, used in the wastewater purification from organic contaminants
Alejandro Caravelli, Edgardo M. Contreras, Leda Giannuzzi and Noemi Zaritzky	2097	Modeling of chlorine effect on floc forming and filamentous micro-organisms of activated sludges
Yuancai Chen, Huaiyu Zhan, Zhonghao Chen and Shiyu Fu	2106	Study on the treatment of the sulfite pulp CEH bleaching effluents with the coagulation–anaerobic acidification–aeration package reactor
F. Unob, A. Hagège, D. Lakkis and M. Leroy	2113	Degradation of organolead species in aqueous solutions by electron beam irradiation
Núria Lázaro, Asunción López Sevilla, Susana Morales and Ana M. Marqués	2118	Heavy metal biosorption by gellan gum gel beads
Britt-Marie Wilén, Bo Jin and Paul Lant	2127	The influence of key chemical constituents in activated sludge on surface and flocculating properties
Athanasios S. Stasinakis, Nikolaos S. Thomaidis, Daniel Mamais, Evangelia C. Papanikolaou, Angeliki Tsakon and Themistokles D. Lekkas	2140	Effects of chromium (VI) addition on the activated sludge process
Sheng-He Gu, Andrew C. Kralovec, Erik R. Christensen and Ryan P. Van Camp	2149	Source apportionment of PAHs in dated sediments from the Black River, Ohio
Alan G. Werker, Jennifer Becker and Carly Huitema	2162	Assessment of activated sludge microbial community analysis in full-scale biological wastewater treatment plants using patterns of fatty acid isopropyl esters (FAPEs)

D. Gay and W. Maher 2173 Natural variation of copper, zinc, cadmium and selenium concentrations in *Bembicium nanum* and their potential use as a biomonitor of trace metals

J.F. Schijven, H.A.M. de Bruin, S.M. Hassanizadeh and A.M. de Roda Husman 2186 Bacteriophages and clostridium spores as indicator organisms for removal of pathogens by passage through saturated dune sand

Che Ok Jeon, Dae Sung Lee and Jong Moon Park 2195 Microbial communities in activated sludge performing enhanced biological phosphorus removal in a sequencing batch reactor

Hisashi Satoh, Satoshi Okabe, Yuki Yamaguchi and Yoshimasa Watanabe 2206 Evaluation of the impact of bioaugmentation and biostimulation by in situ hybridization and microelectrode

Research Notes

A.A. Koelmans and L. Prevo 2217 Production of dissolved organic carbon in aquatic sediment suspensions

Zhifen Lin, Ping Shi, Shixiang Gao, Liansheng Wang and Hongxia Yu 2223 Use of partition coefficients to predict mixture toxicity

Joontaek Lim, Taeyun Kim and Seokhwan Hwang 2228 Treatment of fish-processing wastewater by co-culture of *Candida rugopelliculosa* and *Brachionus plicatilis*

Technical Notes

M.I. Aguilar, J. Sáez, M. Lloréns, A. Soler and J.F. Ortuño 2233 Microscopic observation of particle reduction in slaughterhouse wastewater by coagulation–flocculation using ferric sulphate as coagulant and different coagulant aids

Marie-Hélène Tusseau-Vuillemin, Jérome Dispan, Jean-Marie Mouchel and Pierre Servais 2242 Biodegradable fraction of organic carbon estimated under oxic and anoxic conditions

D. Georgiou, A. Aivazidis, J. Hatiras and K. Gimouhopoulos 2248 Treatment of cotton textile wastewater using lime and ferrous sulfate

Rapid Communication

Y. Moreno, M.A. Ferrús, J.L. Alonso, A. Jiménez and J. Hernández 2251 Use of fluorescent in situ hybridization to evidence the presence of *Helicobacter pylori* in water

Erratum

Jörg Dilling and Klaus Kaiser 2257 Erratum to "Estimation of the hydrophobic fraction of dissolved organic matter in water samples using UV photometry" [Water Res 2002;36(20):5037–44]

Number 10

Full Papers

Marja A. Tiirola, Juhani E. Suvilampi, Markku S. Kulomaa and Jukka A. Rintala 2259 Microbial diversity in a thermophilic aerobic biofilm process: analysis by length heterogeneity PCR (LH-PCR)

M.V.G. Vallero, L.W. Hulshoff Pol, G. Lettinga and P.N.L. Lens 2269 Effect of NaCl on thermophilic (55°C) methanol degradation in sulfate reducing granular sludge reactors

S.J. You, C.L. Hsu, S.H. Chuang and C.F. Ouyang 2281 Nitrification efficiency and nitrifying bacteria abundance in combined AS-RBC and A2O systems

Kevin P. Drees, Morteza Abbaszadegan and Raina M. Maier 2291 Comparative electrochemical inactivation of bacteria and bacteriophage

Mario Esparza-Soto and Paul Westerhoff 2301 Biosorption of humic and fulvic acids to live activated sludge biomass

KANAVILLIL NANDAKUMAR, HIDEKI OBIKA, TATSUYA SHINOZAKI, TOSHIHIKO OOIE, AKIHIRO UTSUMI and TETSUO YANO	2311	Pulsed laser irradiation impact on two marine diatoms *Skeletonema costatum* and *Chaetoceros gracilis*
PAUL C.M. VAN NOORT, GERARD CORNELISSEN, THEODORA E.M. TEN HULSCHER, BEA A. VRIND, HENK RIGTERINK and ANGELIQUE BELFROID	2317	Slow and very slow desorption of organic compounds from sediment: influence of sorbate planarity
YUH-SHAN HO	2323	Removal of copper ions from aqueous solution by tree fern
WEN K. SHIEH and YACHI TSAO	2331	Impulse responses of a monoethylamine-fed fluidized bed reactor
W. CHU and C.K. LAW	2339	Treatment of trichlorophenol by catalytic oxidation process
JIA-MING CHERN and YI-WEN CHIEN	2347	Competitive adsorption of benzoic acid and *p*-nitrophenol onto activated carbon: isotherm and breakthrough curves
ALBERTO SANTOJANNI, GIULIANA ROSSOLINI, GESSICA GORBI, LUCIO PIANTANELLI and FRANCO SARTORE	2357	Use of a mathematical model in the analysis of survival curves of *Daphnia magna* exposed to toxicants
CECILIA CARETTI and CLAUDIO LUBELLO	2365	Wastewater disinfection with PAA and UV combined treatment: a pilot plant study
MICHAEL A. BECKETT and INEZ HUA	2372	Enhanced sonochemical decomposition of 1,4-dioxane by ferrous iron
J. COMAS, I. RODRÌGUEZ-RODA, M. SÀNCHEZ-MARRÈ, U. CORTÉS, A. FREIXÓ, J. ARRÀEZ and M. POCH	2377	A knowledge-based approach to the deflocculation problem: integrating on-line, off-line, and heuristic information
TATIANA GÖRNER, PHILIPPE DE DONATO, MARIE-HÉLÈNE AMEIL, EMMANUELLE MONTARGES-PELLETIER and BRUNO S. LARTIGES	2388	Activated sludge exopolymers: separation and identification using size exclusion chromatography and infrared microspectroscopy
U. WELANDER and B. MATTIASSON	2394	Denitrification at low temperatures using a suspended carrier biofilm process
Y.J. FENG and X.Y. LI	2399	Electro-catalytic oxidation of phenol on several metal-oxide electrodes in aqueous solution
KIJUNE SUNG, C.L. MUNSTER, R. RHYKERD, M.C. DREW and M. YAVUZ CORAPCIOGLU	2408	The use of vegetation to remediate soil freshly contaminated by recalcitrant contaminants
YIBING LU and ZIJIAN WANG	2419	Accumulation of organochlorinated pesticides by triolein-containing semipermeable membrane device (triolein-SPMD) and rainbow trout
A. CASSANO, J. ADZET, R. MOLINARI, M.G. BUONOMENNA, J. ROIG and E. DRIOLI	2426	Membrane treatment by nanofiltration of exhausted vegetable tannin liquors from the leather industry
A. MULLER, M.C. WENTZEL, R.E. LOEWENTHAL and G.A. EKAMA	2435	Heterotroph anoxic yield in anoxic aerobic activated sludge systems treating municipal wastewater
W. CHU and C.Y. KWAN	2442	Reactor design and kinetics study of 4,4′-dichlorobiphenyl photodecay in surfactant solution by using a photosensitizer and hydrogen source
LI-JYUR TSAI, KUANG-CHUNG YU, SHU-FEN CHEN and PEI-YI KUNG	2449	Effect of temperature on removal of heavy metals from contaminated river sediments via bioleaching
LENE HAUGAARD MIKKELSEN	2458	Applications and limitations of the colloid titration method for measuring activated sludge surface charges

KEUNYOUNG YANG, YOUNGSEOB YU and SEOKHWAN HWANG — 2467 — Selective optimization in thermophilic acidogenesis of cheese-whey wastewater to acetic and butyric acids: partial acidification and methanation

JOO SUNG AHN, CHUL-MIN CHON, HI-SOO MOON and KYOUNG-WOONG KIM — 2478 — Arsenic removal using steel manufacturing byproducts as permeable reactive materials in mine tailing containment systems

YING-XUE CHEN, YAN ZHANG and GUANG-HAO CHEN — 2489 — Appropriate conditions or maximizing catalytic reduction efficiency of nitrate into nitrogen gas in groundwater

JING CHEN, SIMO O. PEHKONEN and CHE-JEN LIN — 2496 — Degradation of monomethylmercury chloride by hydroxyl radicals in simulated natural waters

X. DENG, Q.B. LI, Y.H. LU, D.H. SUN, Y.L. HUANG and X.R. CHEN — 2505 — Bioaccumulation of nickel from aqueous solutions by genetically engineered *Escherichia coli*

Research note

J.W. PEEL, K.J. REDDY, B.P. SULLIVAN and J.M. BOWEN — 2512 — Electrocatalytic reduction of nitrate in water

Technical note

GUILLAUME GAY, OLIVIER LORAIN, AZA AZOUNI and YVES AURELLE — 2520 — Wastewater treatment by radial freezing with stirring effects

Comment

H.V. SMITH, B.M. CAMPBELL and A.M. GRIMASON — 2525 — Comments on research note

Reply

C.P. HUANG — 2528 — Authors' reply

Erratum

R. NOGUEIRA, L.F. MELO, U. PURKHOLD, S. WUERTZ and M. WAGNER — 2531 — Erratum to "Nitrifying and heterotrophic population dynamics in biofilm reactors: effects of hydraulic retention time and the presence of organic carbon" [Water Research 36 (2002) 469–481]

Number 11

Review

BERND NOWACK — 2533 — Environmental chemistry of phosphonates

Full Papers

M. ARAUZO and M. VALLADOLID — 2547 — Short-term harmful effects of unionised ammonia on natural populations of *Moina micrura* and *Brachionus rubens* in a deep waste treatment pond

ANTÓNIO M.P. MARTINS, JOSEPH J. HEIJNEN and MARK C.M. VAN LOOSDRECHT — 2555 — Effect of feeding pattern and storage on the sludge settleability under aerobic conditions

KAI M. UDERT, TOVE A. LARSEN, MARTIN BIEBOW and WILLI GUJER — 2571 — Urea hydrolysis and precipitation dynamics in a urine-collecting system

Y.H. CHEN, C.Y. CHANG, C.Y. CHIU, Y.H. YU, P.C. CHIANG, Y. KU and J.N. CHEN — 2583 — Dynamic behavior of ozonation with pollutant in a countercurrent bubble column with oxygen mass transfer

YOICHI NAKANO, KIYOKAZU OKAWA, WATARU NISHIJIMA and MITSUMASA OKADA — 2595 — Ozone decomposition of hazardous chemical substance in organic solvents

X.Q. Lu, N. Maie, J.V. Hanna, D.L. Childers and R. Jaffé	2599	Molecular characterization of dissolved organic matter in freshwater wetlands of the Florida Everglades
M. Ricking, J. Schwarzbauer and S. Franke	2607	Molecular markers of anthropogenic activity in sediments of the Havel and Spree Rivers (Germany)
Anne-Marie Bomo, Asbjørn Husby, Tor Kristian Stevik and Jon Fredrik Hanssen	2618	Removal of fish pathogenic bacteria in biological sand filters
A. Escalas, M. Droguet, J.M. Guadayol and J. Caixach	2627	Estimating DOC regime in a wastewater treatment plant by UV deconvolution
Gillian Thompson and Christopher Forster	2636	Bulking in activated sludge plants treating paper mill wastewaters
Joan García, Joan Vivar, Maria Aromir and Rafael Mujeriego	2645	Role of hydraulic retention time and granular medium in microbial removal in tertiary treatment reed beds
Dominic L. Boccelli, Michael E. Tryby, James G. Uber and R. Scott Summers	2654	A reactive species model for chlorine decay and THM formation under rechlorination conditions
Kai M. Udert, Tove A. Larsen and Willi Gujer	2667	Estimating the precipitation potential in urine-collecting systems
Daniel Gapes, Steven Pratt, Zhiguo Yuan and Jurg Keller	2678	Online titrimetric and off-gas analysis for examining nitrification processes in wastewater treatment
A.R.R. Péry, V. Ducrot, R. Mons, C. Miège, J. Gahou, D. Gorini and J. Garric	2691	Survival tests with *Chironomus riparius* exposed to spiked sediments can profit from DEBtox model
S.L. McLellan and A.K. Salmore	2700	Evidence for localized bacterial loading as the cause of chronic beach closings in a freshwater marina
T.N. Castro Dantas, A.A. Dantas Neto, M.C.P.A. Moura, E.L. Barros Neto, K.R. Forte and R.H.L. Leite	2709	Heavy metals extraction by microemulsions
Michael Cleuvers and Arnd Weyers	2718	Algal growth inhibition test: does shading of coloured substances really matter?
Emilio Daverio, Federico Aulenta, Jos Ligthart, Carlo Bassani and Alberto Rozzi	2723	Application of calorimetric measurements for biokinetic characterisation of nitrifying population in activated sludge
G. Farabegoli, C. Hellinga, J.J. Heijnen and M.C.M. van Loosdrecht	2732	Study on the use of NADH fluorescence measurements for monitoring wastewater treatment systems
M. Stone and B.G. Krishnappan	2739	Floc morphology and size distributions of cohesive sediment in steady-state flow
Philip Hörsch, Andreas Speck and Fritz H. Frimmel	2748	Combined advanced oxidation and biodegradation of industrial effluents from the production of stilbene-based fluorescent whitening agents
Michael F. Coughlin, Brian K. Kinkle and Paul L. Bishop	2757	High performance degradation of azo dye Acid Orange 7 and sulfanilic acid in a laboratory scale reactor after seeding with cultured bacterial strains
Federico Aulenta, Davide Dionisi, Mauro Majone, Antonio Parisi, Roberto Ramadori and Valter Tandoi	2764	Effect of periodic feeding in sequencing batch reactor on substrate uptake and storage rates by a pure culture of *Amaricoccus kaplicensis*
Robert M. Clark, Mano Sivaganesan, Eugene W. Rice and Jimmy Chen	2773	Development of a *Ct* equation for the inactivation of *Cryptosporidium* oocysts with chlorine dioxide

Research Note

GUANG-HAO CHEN, DEREK H.W. LEUNG and JU-CHANG HUNG — 2784 — Biofilm in the sediment phase of a sanitary gravity sewer

Rapid Communication

C.C. WANG, C.W. CHANG, C.P. CHU, D.J. LEE, BEA-VEN CHANG, C.S. LIAO and J.H. TAY — 2789 — Using filtrate of waste biosolids to effectively produce bio-hydrogen by anaerobic fermentation

Comment

ALEXANDER SUKHODOLOV, HEINZ BUNGARTZ and CHRISTOF ENGELHARDT — 2794 — Comment on "determination of areal sedimentation rates in rivers by using plate sediment trap measurements and flow velocity—settling flux relationship" by Hans-Peter Kozerski

Reply

HANS-PETER KOZERSKI — 2796 — More about plate sediment trap measurements—Reply to the comment of Sukhodolov et al. [1]

Number 12

Full Papers

KIMBERLEY CAMERON, CHANDRA MADRAMOOTOO, ANNA CROLLA and CHRISTOPHER KINSLEY — 2803 — Pollutant removal from municipal sewage lagoon effluents with a free-surface wetland

A. KOSTAMO and J.V.K. KUKKONEN — 2813 — Removal of resin acids and sterols from pulp mill effluents by activated sludge treatment

P.T. CARDEW — 2821 — A method for assessing the effect of water quality changes on plumbosolvency using random daytime sampling

CHARLES J. GANTZER and HEINZ G. STEFAN — 2833 — A model of microbial activity in lake sediments in response to periodic water-column mixing

VIGNATI DAVIDE, MICHEL PARDOS, JÉRÔME DISERENS, GIANCARLO UGAZIO, RICHARD THOMAS and JANUSZ DOMINIK — 2847 — Characterisation of bed sediments and suspension of the river Po (Italy) during normal and high flow conditions

SAMI MAALEJ, AMIRA MAHJOUBI, CHAFAI ELAZRI and SAM DUKAN — 2865 — Simultaneous effects of environmental factors on motile *Aeromonas* dynamics in an urban effluent and in the natural seawater

N.K. LAZARIDIS and D.D. ASOUHIDOU — 2875 — Kinetics of sorptive removal of chromium(VI) from aqueous solutions by calcined Mg–Al–CO_3 hydrotalcite

HERVÉ GALLARD, FABIEN PELLIZZARI, JEAN PHILIPPE CROUÉ and B. LEGUBE — 2883 — Rate constants of reactions of bromine with phenols in aqueous solution

BRITTA PETERSEN, KRIST GERNAEY, MARTIJN DEVISSCHER, DENIS DOCHAIN and PETER A. VANROLLEGHEM — 2893 — A simplified method to assess structurally identifiable parameters in Monod-based activated sludge models

X. MA, P.J. NOVAK, L.W. CLAPP, M.J. SEMMENS and R.M. HOZALSKI — 2905 — Evaluation of polyethylene hollow-fiber membranes for hydrogen delivery to support reductive dechlorination in a soil column

JYH-HERNG CHEN, YUNG-CHIEN HSU, Y.-F. CHEN and CHIH-CHU LIN — 2919 — Application of gas-inducing reactor to obtain high oxygen dissolution in aeration process

CORINNE CASIOT, GUILLAUME MORIN, FARID JUILLOT, ODILE BRUNEEL, JEAN-CHRISTIAN PERSONNÉ, MARC LEBLANC, KATIA DUQUESNE, VIOLAINE BONNEFOY and FRANCOISE ELBAZ-POULICHET — 2929 — Bacterial immobilization and oxidation of arsenic in acid mine drainage (Carnoulès creek, France)

S. KAYOMBO, T.S.A. MBWETTE, J.H.Y. KATIMA and S.E JORGENSEN — 2937 — Effects of substrate concentrations on the growth of heterotrophic bacteria and algae in secondary facultative ponds

C.K. LIN, Y. KATAYAMA, M. HOSOMI, A. MURAKAMI and M. OKADA — 2944 — The characteristics of the bacterial community structure and population dynamics for phosphorus removal in SBR activated sludge processes

KHURSHEED KARIM and S.K. GUPTA — 2953 — Continuous biotransformation and removal of nitrophenols under denitrifying conditions

HONGWEN SUN, MASAFUMI TATEDA, MICHIHIKO IKE and MASANORI FUJITA — 2960 — Short- and long-term sorption/desorption of polycyclic aromatic hydrocarbons onto artificial solids: effects of particle and pore sizes and organic matters

L.B. PARR and C.F. MASON — 2969 — Long-term trends in water quality and their impact on macroinvertebrate assemblages in eutrophic lowland rivers

CHARLES N. HAAS and BARIS KAYMAK — 2980 — Effect of initial microbial density on inactivation of *Giardia muris* by ozone

EUN-MI GWON, MYONG-JIN YU, HEE-KYONG OH and YONG-HUN YLEE — 2989 — Fouling characteristics of NF and RO operated for removal of dissolved matter from groundwater

MONICA B. EMELKO — 2998 — Removal of viable and inactivated *Cryptosporidium* by dual- and tri-media filtration

M.-W. TSAI, M.C. WENTZEL and G.A. EKAMA — 3009 — The effect of residual ammonia concentration under aerobic conditions on the growth of *Microthrix parvicella* in biological nutrient removal plants

JEFFREY S. LEVITT, ADEOLA L. N'GUESSAN, KERRY L. RAPP and MARIANNE C. NYMAN — 3016 — Remediation of α-methylnaphthalene-contaminated sediments using peroxy acid

N.K. LAZARIDIS, T.D. KARAPANTSIOS and D. GEORGANTAS — 3023 — Kinetic analysis for the removal of a reactive dye from aqueous solution onto hydrotalcite by adsorption

ROCÍO LÓPEZ-FLORES, XAVIER D. QUINTANA, VICTORIA SALVADÓ, MANUELA HIDALGO, LLUIS SALA and RAMON MORENO-AMICH — 3034 — Comparison of nutrient and contaminant fluxes in two areas with different hydrological regimes (Empordà Wetlands, NE Spain)

ISABELLE M. RIVAS, HANS MOSBÆK and ERIK ARVIN — 3047 — Product formation from thiophene by a mixed bacterial culture. Influence of benzene as growth substrate

Number 13

Full Papers

D.M. REYNOLDS — 3055 — Rapid and direct determination of tryptophan in water using synchronous fluorescence spectroscopy

ANABELA M.F.M. GUEDES, LUIS M.P. MADEIRA, RUI A.R. BOAVENTURA and CARLOS A.V. COSTA — 3061 — Fenton oxidation of cork cooking wastewater—overall kinetic analysis

TEPPEI FUKADA, KEVIN M. HISCOCK, PAUL F. DENNIS and THOMAS GRISCHEK — 3070 — A dual isotope approach to identify denitrification in groundwater at a river-bank infiltration site

NATHALIE CHIRON, RICHARD GUILET and ERIC DEYDIER — 3079 — Adsorption of Cu(II) and Pb(II) onto a grafted silica: isotherms and kinetic models

P. VAN RENSBURG, E.V. MUSVOTO, M.C. WENTZEL and G.A. EKAMA — 3087 — Modelling multiple mineral precipitation in anaerobic digester liquor

Frank P. van der Zee, Iemke A.E. Bisschops, Valérie G. Blanchard, Renske H.M. Bouwman, Gatze Lettinga and Jim A. Field	3098	The contribution of biotic and abiotic processes during azo dye reduction in anaerobic sludge
M.J. Sánchez-Martín, M.S. Rodrìguez-Cruz and M. Sánchez-Camazano	3110	Study of the desorption of linuron from soils to water enhanced by the addition of an anionic surfactant to soil–water system
Ricardo A. Torres, Victor Sarria, Walter Torres, Paul Peringer and Cesar Pulgarin	3118	Electrochemical treatment of industrial wastewater containing 5-amino-6-methyl-2-benzimidazolone: toward an electrochemical–biological coupling
Guang-Hao Chen, Man-Tak Wong, Satoshi Okabe and Yoshimasa Watanabe	3125	Dynamic response of nitrifying activated sludge batch culture to increased chloride concentration
John T. Novak, Mary E. Sadler and Sudhir N. Murthy	3136	Mechanisms of floc destruction during anaerobic and aerobic digestion and the effect on conditioning and dewatering of biosolids
Darius Sabaliunas, Simon F. Webb, Armin Hauk, Martin Jacob and William S. Eckhoff	3145	Environmental fate of Triclosan in the River Aire Basin, UK
J. Aaron Frim, James F. Rathman and Linda K. Weavers	3155	Sonochemical destruction of free and metal-binding ethylenediaminetetraacetic acid
S. Contreras, M. Rodrìguez, F. Al Momani, C. Sans and S. Esplugas	3164	Contribution of the ozonation pre-treatment to the biodegradation of aqueous solutions of 2,4-dichlorophenol
Ming-Jer Liou, Ming-Chun Lu and Jong-Nan Chen	3172	Oxidation of explosives by Fenton and photo-Fenton processes
P. Fernández-Ibáñez, J. Blanco, S. Malato and F.J. de las Nieves	3180	Application of the colloidal stability of TiO_2 particles for recovery and reuse in solar photocatalysis
Syed A. Hashsham and David L. Freedman	3189	Adsorption of vitamin B_{12} to alumina, kaolinite, sand and sandy soil
Jörg Lewandowski, Inke Schauser and Michael Hupfer	3194	Long term effects of phosphorus precipitations with alum in hypereutrophic Lake Süsser See (Germany)
L. Gianfreda, F. Sannino, M.A. Rao and J.-M. Bollag	3205	Oxidative transformation of phenols in aqueous mixtures
Hisaya Kojima and Manabu Fukui	3216	Phylogenetic analysis of *Beggiatoa* spp. from organic rich sediment of Tokyo Bay, Japan
Martin Eschenhagen, Markus Schuppler and Isolde Röske	3224	Molecular characterization of the microbial community structure in two activated sludge systems for the advanced treatment of domestic effluents
Adriano A. Bordalo	3233	Microbiological water quality in urban coastal beaches: the influence of water dynamics and optimization of the sampling strategy
Hong Anh Duong, Michael Berg, Minh Hang Hoang, Hung Viet Pham, Hervé Gallard, Walter Giger and Urs von Gunten	3242	Trihalomethane formation by chlorination of ammonium- and bromide-containing groundwater in water supplies of Hanoi, Vietnam
Vlatka Filipović and Biserka Raspor	3253	Metallothionein and metal levels in cytosol of liver, kidney and brain in relation to growth parameters of *Mullus surmuletus* and *Liza aurata* from the Eastern Adriatic Sea
Peter G. Hartel, Jacob D. Summer and William I. Segars	3263	Deer diet affects ribotype diversity of *Escherichia coli* for bacterial source tracking

JIAN-JUN QIN, MAUNG-HTUN OO, MAUNG-NYUNT WAI, C.-M. ANG, FOOK-SIN WONG and HSIAOWAN LEE	3269	A dual membrane UF/RO process for reclamation of spent rinses from a nickel-plating operation—a case study
R. GUY RIEFLER and BARTH F. SMETS	3279	Comparison of a type curve and a least-squared errors method to estimate biofilm kinetic parameters

Comment

RAFA FRAŃSKI, PRZEMYSAW ANDRZEJEWSKI and JACEK NAWROCKI	3286	A possible new disinfection by-product—2-chloro-5-oxo-3-hexene diacyl chloride (COHC)—in formation of MX by chlorinating model compounds

Reply

GONG HUIJUAN, XIAN QIMING and ZOU HUIXIAN	3288	Reply to the paper "Comment on paper 'A possible new disinfection by-product—(COHC)—in formation of MX by chlorinating model compounds'"

Number 14

Full papers

D.H. BACHE and E.N. PAPAVASILOPOULOS	3289	Dewatering of alumino-humic sludge: impacts of hydroxide
PER HYENSTRAND, THOMAS ROHRLACK, KENNETH A. BEATTIE, JAMES S. METCALF, GEOFFREY A. CODD and KIRSTEN CHRISTOFFERSEN	3299	Laboratory studies of dissolved radiolabelled microcystin-LR in lake water
DANIEL J. LARIVIERE, ROBIN L. AUTENRIETH and JAMES S. BONNER	3307	Redox dynamics during recovery of an oil-impacted estuarine wetland
J.D. NUTT, S.D. PILLAI, C.L. WOODWARD, K.L. STERNES, I.B. ZABALA-DÍAZ, Y.M. KWON and S.C. RICKE	3319	Use of a *Salmonella typhimurium hilA* fusion strain to assess effects of environmental fresh water sources on virulence gene expression
M. ARSÈNE SEKA and WILLY VERSTRAETE	3327	Test for assessing shear sensitivity of activated sludge flocs: a feasibility study
J. RIVERA-UTRILLA and M. SÁNCHEZ-POLO	3335	Adsorption of Cr(III) on ozonised activated carbon. Importance of Cπ—cation interactions
KIRSTEN N. EXALL and GARY W. VANLOON	3341	Effects of raw water conditions on solution-state aluminum speciation during coagulant dilution
LUCYNA HOYSZ, EMIL CHIBOWSKI and ALEKSANDRA SZCZEŚ	3351	Influence of impurity ions and magnetic field on the properties of freshly precipitated calcium carbonate
NIKOLAUS NESTLE, THOMAS BAUMANN and REINHARD NIESSNER	3361	Oxygen determination in oxygen-supersaturated drinking waters by NMR relaxometry
CHRISTOPHER F. WEND, PHILIP S. STEWART, WARREN JONES and ANNE K. CAMPER	3367	Pretreatment for membrane water treatment systems: a laboratory study
TONY JONG and DAVID L. PARRY	3379	Removal of sulfate and heavy metals by sulfate reducing bacteria in short-term bench scale upflow anaerobic packed bed reactor runs
M. DEL BUBBA, C.A. ARIAS and H. BRIX	3390	Phosphorus adsorption maximum of sands for use as media in subsurface flow constructed reed beds as measured by the Langmuir isotherm
DAVID M. QUANRUD, JENNIFER HAFER, MARTIN M. KARPISCAK, JIANMIN ZHANG, KEVIN E. LANSEY and ROBERT G. ARNOLD	3401	Fate of organics during soil-aquifer treatment: sustainability of removals in the field

SUNG-KIL PARK and ANGELA R. BIELEFELDT 3412 Equilibrium partitioning of a non-ionic surfactant and pentachloro-phenol between water and a non-aqueous phase liquid

GUY HOWARD, STEPHEN PEDLEY, MIKE BARRETT, MAI NALUBEGA and KALI JOHAL 3421 Risk factors contributing to microbiological contamination of shallow groundwater in Kampala, Uganda

ZHI-RONG HU, M.C. WENTZEL and G.A. EKAMA 3430 Modelling biological nutrient removal activated sludge systems—a review

J.L. CAMPOS, M. SÁNCHEZ, A. MOSQUERA-CORRAL, R. MÉNDEZ and J.M. LEMA 3445 Coupled BAS and anoxic USB system to remove urea and formaldehyde from wastewater

DARREN DELAI SUN, JOO HWA TAY and KOH MIN TAN 3452 Photocatalytic degradation of *E. coliform* in water

J.Y. HU, S.L. ONG, W.J. NG, F. LU and X.J. FAN 3463 A new method for characterizing denitrifying phosphorus removal bacteria by using three different types of electron acceptors

ASMA SAEED and MUHAMMED IQBAL 3472 Bioremoval of cadmium from aqueous solution by black gram husk (*Cicer arientinum*)

R.M. GARCINUÑO, P. FERNÁNDEZ-HERNANDO and C. CÁMARA 3481 Evaluation of pesticide uptake by *Lupinus* seeds

DAISUKE SANO, KENSUKE FUKUSHI, YASUKO YOSHIDA and TATSUO OMURA 3490 Detection of enteric viruses in municipal sewage sludge by a combination of the enzymatic virus elution method and RT-PCR

NEAL R. ADRIAN, CLINT M. ARNETT and ROBERT F. HICKEY 3499 Stimulating the anaerobic biodegradation of explosives by the addition of hydrogen or electron donors that produce hydrogen

BETUL ARICAN and ULKU YETIS 3508 Nickel sorption by acclimatized activated sludge culture

J.L. ZIMMER, R.M. SLAWSON and P.M. HUCK 3517 Inactivation and potential repair of *Cryptosporidium parvum* following low- and medium-pressure ultraviolet irradiation

Research note

MOON-SUN KIM, KYO-MIN HONG and JAYGWAN G. CHUNG 3524 Removal of Cu(II) from aqueous solutions by adsorption process with anatase-type titanium dioxide

Rapid communication

YEOMIN YOON, PAUL WESTERHOFF, SHANE A. SNYDER and MARIO ESPARZA 3530 HPLC-fluorescence detection and adsorption of bisphenol A, 17β-estradiol, and 17α-ethynyl estradiol on powdered activated carbon

Reply

CHIA-SWEE HONG and QINGDONG HUANG 3538 Authors' reply

Number 15

Full papers

D. SCHMITT, F. SARAVIA, F.H. FRIMMEL and W. SCHUESSLER 3541 NOM-facilitated transport of metal ions in aquifers: importance of complex-dissociation kinetics and colloid formation

JAMES A. HIGGINS, JAMES M. TROUT, RONALD FAYER, DANIEL SHELTON and MARK C. JENKINS 3551 Recovery and detection of *Cryptosporidium parvum* oocysts from water samples using continuous flow centrifugation

R. Del Pozo and V. Diez	3561	Organic matter removal in combined anaerobic–aerobic fixed-film bioreactors
Md. Zahangir Alam, A. Fakhru'l-Razi and Abul H. Molla	3569	Biosolids accumulation and biodegradation of domestic wastewater treatment plant sludge by developed liquid state bioconversion process using a batch fermenter
Grady Hanrahan, Martha Gledhill, William A. House and Paul J. Worsfold	3579	Evaluation of phosphorus concentrations in relation to annual and seasonal physico-chemical water quality parameters in a UK chalk stream
Fernando Morgan-Sagastume and D. Grant Allen	3590	Effects of temperature transient conditions on aerobic biological treatment of wastewater
Adeline S.M. Chua, Hiroo Takabatake, Hiroyasu Satoh and Takashi Mino	3602	Production of polyhydroxyalkanoates (PHA) by activated sludge treating municipal wastewater: effect of pH, sludge retention time (SRT), and acetate concentration in influent
Jörg E. Drewes, Martin Reinhard and Peter Fox	3612	Comparing microfiltration-reverse osmosis and soil-aquifer treatment for indirect potable reuse of water
Stephen A. Craik, Daniel W. Smith, Mysore Chandrakanth and Miodrag Belosevic	3622	Effect of turbulent gas–liquid contact in a static mixer on *Cryptosporidium parvum* oocyst inactivation by ozone
Britt-Marie Wilén, Bo Jin and Paul Lant	3632	Impacts of structural characteristics on activated sludge floc stability
Laisheng Li, Wanpeng Zhu, Pengyi Zhang, Zhongyin Chen and Wenya Han	3646	Photocatalytic oxidation and ozonation of catechol over carbon-black-modified nano-TiO_2 thin films supported on Al sheet
Amare Gessesse, Thomas Dueholm, Steffen B. Petersen and Per H. Nielsen	3652	Lipase and protease extraction from activated sludge
Pilar Bou Carrasco, Sergi Díez, Jasmina Jiménez, María-Pilar Marco and Josep M. Bayona	3658	Determination of Irgarol 1051 in Western Mediterranean sediments. Development and application of supercritical fluid extraction–immunoaffinity chromatography procedure
Graham B. McBride	3666	Confidence of compliance: parametric versus nonparametric appro-aches
John Montgomery-Brown, Jörg E. Drewes, Peter Fox and Martin Reinhard	3672	Behavior of alkylphenol polyethoxylate metabolites during soil aquifer treatment
Roberto Andreozzi, Vincenzo Caprio and Raffaele Marotta	3682	Iron(III) (hydr)oxide-mediated photooxidation of 2-aminophenol in aqueous solution: a kinetic study
E. Delahaye, B. Welté, Y. Levi, G. Leblon and A. Montiel	3689	An ATP-based method for monitoring the microbiological drinking water quality in a distribution network
Wenjun Liu, Susan A. Andrews, Mihaela I. Stefan and James R. Bolton	3697	Optimal methods for quenching H_2O_2 residuals prior to UFC testing
Juanita Van Heerden, Marthie M. Ehlers, Walda B. Van Zyl and Wilhelm O.K. Grabow	3704	Incidence of adenoviruses in raw and treated water
Adrie H.M. Veeken, Lawrence Akoto, Look W. Hulshoff Pol and Jan Weijma	3709	Control of the sulfide (S^{2-}) concentration for optimal zinc removal by sulfide precipitation in a continuously stirred tank reactor
Anna Zhu, Wanpeng Zhu, Zhuo Wu and Yifeng Jing	3718	Recovery of clindamycin from fermentation wastewater with nanofiltration membranes

William A. Mitch, Andreas C. Gerecke and David L. Sedlak	3733	A *N*-Nitrosodimethylamine (NDMA) precursor analysis for chlorination of water and wastewater
Sylvie Gillot and Peter A. Vanrolleghem	3742	Equilibrium temperature in aerated basins—comparison of two prediction models
A. Iglesias, R. López, S. Fiol, J.M. Antelo and F. Arce	3749	Analysis of copper and calcium–fulvic acid complexation and competition effects
Laura Toran, Charles Lipka, Arthur Baehr, Timothy Reilly and Ronald Baker	3756	Seasonal and daily variations in concentrations of methyl-tertiary-butyl ether (MTBE) at Cranberry Lake, New Jersey
Haiyan Wang and Jiuhui Qu	3767	Combined bioelectrochemical and sulfur autotrophic denitrification for drinking water treatment
Jiyun Feng, Xijun Hu, Po Lock Yue, Huai Yong Zhu and Gao Qing Lu	3776	Discoloration and mineralization of Reactive Red HE-3B by heterogeneous photo-Fenton reaction
Guang-Guo Ying, Rai S. Kookana and Peter Dillon	3785	Sorption and degradation of selected five endocrine disrupting chemicals in aquifer material

Number 16

Full papers

B.C. Braskerud	3793	Clay particle retention in small constructed wetlands
M. Concetta Tomei, M. Cristina Annesini, Roberta Luberti, Giorgia Cento and Alessandro Senia	3803	Kinetics of 4-nitrophenol biodegradation in a sequencing batch reactor
Junshui Chen, Meichuan Liu, Li Zhang, Jidong Zhang and Litong Jin	3815	Application of nano TiO_2 towards polluted water treatment combined with electro-photochemical method
Dimosthenis. L. Giokas, Glen. T. Daigger, Marcos. von Sperling, Youngchul. Kim and Panayotis. A. Paraskevas	3821	Comparison and evaluation of empirical zone settling velocity parameters based on sludge volume index using a unified settling characteristics database
Pedro José Sanches Filho, Angel Rios, Miguel Valcárcel and Elina Bastos Caramao	3837	Development of a new method for the determination of nitrosamines by micellar electrokinetic capillary chromatography
E. Remoudaki, A. Hatzikioseyian, P. Kousi and M. Tsezos	3843	The mechanism of metals precipitation by biologically generated alkalinity in biofilm reactors
Guang-Hao Chen, Kyoung-Jin An, Sébastien Saby, Etienne Brois and Malik Djafer	3855	Possible cause of excess sludge reduction in an oxic-settling-anaerobic activated sludge process (OSA process)
B. Van der Bruggen, R. Milis, C. Vandecasteele, P. Bielen, E. Van San and K. Huysman	3867	Electrodialysis and nanofiltration of surface water for subsequent use as infiltration water
Yi Zhou, Fu sui Zhang, Hong sheng Yang, Shumei Zhang and Xi nian Ma	3875	Comparison of effectiveness of different ashing auxiliaries for determination of phosphorus in natural waters, aquatic organisms and sediments by ignition method
F.A. López, M.I. Martín, C. Pérez, A. López-Delgado and F.J. Alguacil	3883	Removal of copper ions from aqueous solutions by a steel-making by-product
K. Bester	3891	Triclosan in a sewage treatment process—balances and monitoring data
G. Aggelis, D. Iconomou, M. Christou, D. Bokas, S. Kotzailias, G. Christou, V. Tsagou and S. Papanikolaou	3897	Phenolic removal in a model olive oil mill wastewater using *Pleurotus ostreatus* in bioreactor cultures and biological evaluation of the process

XIN-MIN ZHAN and XUAN ZHAO	3905	Mechanism of lead adsorption from aqueous solutions using an adsorbent synthesized from natural condensed tannin
A. ESCALAS, J.M. GUADAYOL, M. CORTINA, J. RIVERA and J. CAIXACH	3913	Time and space patterns of volatile organic compounds in a sewage treatment plant
FADHIL M. SALIH	3921	Formulation of a mathematical model to predict solar water disinfection
HONG WANG, ADHITYAN APPAN and JOHN S. GULLIVER	3928	Modeling of phosphorus dynamics in aquatic sediments: I—model development
HONG WANG, ADHITYAN APPAN and JOHN S. GULLIVER	3939	Modeling of phosphorus dynamics in aquatic sediments: II—examination of model performance
S. BHATTACHARJEE, S. CHAKRABARTY, S. MAITY, S. KAR, P. THAKUR and G. BHATTACHARYYA	3954	Removal of lead from contaminated water bodies using sea nodule as an adsorbent
WEI MA and J.M. TOBIN	3967	Development of multimetal binding model and application to binary metal biosorption onto peat biomass
ELIZABETH WHEELER ALM, JANICE BURKE and ANNE SPAIN	3978	Fecal indicator bacteria are abundant in wet sand at freshwater beaches
ZACARIA REDDAD, CLAIRE GÉRENTE, YVES ANDRÈS, JEAN-FRANÇOIS THIBAULT and PIERRE LE CLOIREC	3983	Cadmium and lead adsorption by a natural polysaccharide in MF membrane reactor: experimental analysis and modelling
MUHAMMAD SHARIQ VOHRA and KEIICHI TANAKA	3992	Photocatalytic degradation of aqueous pollutants using silica-modified TiO_2
K.H. CHAN and W. CHU	3997	The system design of atrazine oxidation by catalytic oxidation process through a kinetic approach
SUNG-DEUK CHOI, HYO-BONG HONG and YOON-SEOK CHANG	4004	Adsorption of halogenated aromatic pollutants by a protein released from *Bacillus pumilus*
SIDNEY BIESTERFELD, GREG FARMER, LINDA FIGUEROA, DENNY PARKER and PHIL RUSSELL	4011	Quantification of denitrification potential in carbonaceous trickling filters
C. BLÖCHER, J. DORDA, V. MAVROV, H. CHMIEL, N.K. LAZARIDIS and K.A. MATIS	4018	Hybrid flotation—membrane filtration process for the removal of heavy metal ions from wastewater
FUSHENG LI, AKIRA YUASA, HAJIME CHIHARADA and YOSHIHIKO MATSUI	4027	Storm impacts upon the composition of organic matrices in Nagara River—A study based on molecular weight and activated carbon adsorbability
VINOD K. GUPTA, C.K. JAIN, IMRAN ALI, M. SHARMA and V.K. SAINI	4038	Removal of cadmium and nickel from wastewater using bagasse fly ash—a sugar industry waste
Technical note		
TOMOHITO KAMEDA, TOSHIAKI YOSHIOKA, TERUHISA MITSUHASHI, MIHO UCHIDA and AKITSUGU OKUWAKI	4045	The simultaneous removal of calcium and chloride ions from calcium chloride solution using magnesium–aluminum oxide

Number 17

Full papers

BADRI N. BADRIYHA, VARADARAJAN RAVINDRAN, WALTER DEN and MASSOUD PIRBAZARI	4051	Bioadsorber efficiency, design, and performance forecasting for alachlor removal

Regina M.B.O. Duarte, Eduarda B.H. Santos and Armando C. Duarte	4073	Spectroscopic characteristics of ultrafiltration fractions of fulvic and humic acids isolated from an eucalyptus bleached Kraft pulp mill effluent
F. Javier Benitez, Juan L. Acero, Juan Garcia and Ana I. Leal	4081	Purification of cork processing wastewaters by ozone, by activated sludge, and by their two sequential applications
M.D. Hernando, M. Ejerhoon, A.R. Fernández-Alba and Y. Chisti	4091	Combined toxicity effects of MTBE and pesticides measured with *Vibrio fischeri* and *Daphnia magna* bioassays
Francisco Omil, Juan M. Garrido, Belén Arrojo and Ramón Méndez	4099	Anaerobic filter reactor performance for the treatment of complex dairy wastewater at industrial scale
Chih-Hsiang Liao, Shyh-Fang Kang and Yu-Wei Hsu	4109	Zero-valent iron reduction of nitrate in the presence of ultraviolet light, organic matter and hydrogen peroxide
V. Simeonov, J.A. Stratis, C. Samara, G. Zachariadis, D. Voutsa, A. Anthemidis, M. Sofoniou and Th. Kouimtzis	4119	Assessment of the surface water quality in Northern Greece
Lida Malandra, Gideon Wolfaardt, Ancha Zietsman and Marinda Viljoen-Bloom	4125	Microbiology of a biological contactor for winery wastewater treatment
Byong-Hun Jeon, Brian A. Dempsey, William D. Burgos and Richard A. Royer	4135	Sorption kinetics of Fe(II), Zn(II), Co(II), Ni(II), Cd(II), and Fe(II)/Me(II) onto hematite
Zhaozhe Hua, Jian Chen, Shiyi Lun and Xiaorong Wang	4143	Influence of biosurfactants produced by *Candida antarctica* on surface properties of microorganism and biodegradation of *n*-alkanes
Patricia Menon, Gilles Billen and Pierre Servais	4151	Mortality rates of autochthonous and fecal bacteria in natural aquatic ecosystems
Seiya Nagao, Takeshi Matsunaga, Yasuhiro Suzuki, Takashi Ueno and Hikaru Amano	4159	Characteristics of humic substances in the Kuji River waters as determined by high-performance size exclusion chromatography with fluorescence detection
Meea Kang, Tasuku Kamei and Yasumoto Magara	4171	Comparing polyaluminum chloride and ferric chloride for antimony removal
D.S. Maycock, M.M. Prenner, R. Kheir, S. Morris, A. Callaghan, P. Whitehouse, D. Morritt and M. Crane	4180	Incorporation of in situ and biomarker assays in higher-tier assessment of the aquatic toxicity of insecticides
Song Wang and William A. Arnold	4191	Abiotic reduction of dinitroaniline herbicides
Y. Lee and J.A. Oleszkiewicz	4202	Effects of predation and ORP conditions on the performance of nitrifiers in activated sludge systems
J. Carrera, J.A. Baeza, T. Vicent and J. Lafuente	4211	Biological nitrogen removal of high-strength ammonium industrial wastewater with two-sludge system
Haejin Ha and Michael K. Stenstrom	4222	Identification of land use with water quality data in stormwater using a neural network
H. Salehizadeh and S.A. Shojaosadati	4231	Removal of metal ions from aqueous solution by polysaccharide produced from *Bacillus firmus*
P. Kuschk, A. Wießner, U. Kappelmeyer, E. Weißbrodt, M. Kästner and U. Stottmeister	4236	Annual cycle of nitrogen removal by a pilot-scale subsurface horizontal flow in a constructed wetland under moderate climate
Inês P.A. Morais, M. Renata S. Souto, Teresa I.M.S. Lopes and António O.S.S. Rangel	4243	Use of a single air segment to minimise dispersion and improve mixing in sequential injection: turbidimetric determination of sulphate in waters

CHON-LIN LEE, LI-JUNG KUO, HUEI-LING WANG and PING-CHIEH HSIEH 4250 Effects of ionic strength on the binding of phenanthrene and pyrene to humic substances: three-stage variation model

TAIRA HIDAKA, HIROSHI TSUNO and NAOYUKI KISHIMOTO 4259 Advanced treatment of sewage by pre-coagulation and biological filtration process

CHANGZHI ZHAO, YUZHEN PAN, YAN SU, ZHIHUI ZHANG, ZHEN GUO and LICHENG SUN 4270 Determination of EDTA species in water by square-wave voltammetry using a chitosan-coated glassy carbon electrode

SEOK-YOUNG OH, PEI C. CHIU, BYUNG J. KIM and DANIEL K. CHA 4275 Enhancing Fenton oxidation of TNT and RDX through pretreatment with zero-valent iron

AKIO IMAI, KAZUO MATSUSHIGE and TAKASHI NAGAI 4284 Trihalomethane formation potential of dissolved organic matter in a shallow eutrophic lake

NAMGUK HER, GARY AMY, DIANE MCKNIGHT, JINSIK SOHN and YEOMIN YOON 4295 Characterization of DOM as a function of MW by fluorescence EEM and HPLC-SEC using UVA, DOC, and fluorescence detection

Comment

DENNY S. PARKER and ERIC J. WAHLBERG 4304 Comment on "The shear sensitivity of activated sludge: an evaluation of the possibility for a standardized floc strength test" by Lene Haugaard Mikkelsen and Kristian Keiding, published in Water Research 36(12) (2002) 2931–2940

Reply

LENE HAUGAARD MIKKELSEN 4307 Author's response

Number 18

THOMAS A. DAVIS, BOHUMIL VOLESKY and ALFONSO MUCCI 4311 A review of the biochemistry of heavy metal biosorption by brown algae

Full papers

PARTHA SARATHI MAJUMDER and S.K. GUPTA 4331 Hybrid reactor for priority pollutant nitrobenzene removal

M.J. LANDMAN and M.R. VAN DEN HEUVEL 4337 An improved system for the control of dissolved oxygen in freshwater aquaria

MICHAEL J. SEMMENS, KARL DAHM, JOHN SHANAHAN and ALINA CHRISTIANSON 4343 COD and nitrogen removal by biofilms growing on gas permeable membranes

LE ZENG 4351 A method for preparing silica-containing iron(III) oxide adsorbents for arsenic removal

DANIEL J. FISHER, DENNIS T. BURTON, LANCE T. YONKOS, STEVEN D. TURLEY, GREGORY P. ZIEGLER and BONNIE S. TURLEY 4359 Derivation of acute ecological risk criteria for chlorite in freshwater ecosystems

BENJAMIN O. BRATTEBO and DEREK B. BOOTH 4369 Long-term stormwater quantity and quality performance of permeable pavement systems

ELSA ARTOLA-GARICANO, JOOP L.M. HERMENS and WOUTER H.J. VAES 4377 Evaluation of Simple Treat 3.0 for two hydrophobic and slowly biodegradable chemicals: polycyclic musks HHCB and AHTN

ERNEST R. BLATCHLEY III, DIMITRIS MARGETAS and RAVIKRISHNA DUGGIRALA 4385 Copper catalysis in chloroform formation during water chlorination

JIANMIN HUA, PINGLIN AN, JOSEF WINTER and CLAUDIA GALLERT	4395	Elimination of COD, microorganisms and pharmaceuticals from sewage by trickling through sandy soil below leaking sewers
C.Y. KWAN and W. CHU	4405	Photodegradation of 2,4-dichlorophenoxyacetic acid in various iron-mediated oxidation systems
YOSHIHIKO MATSUI, YOSHITAKA FUKUDA, TAKANOBU INOUE and TAKU MATSUSHITA	4413	Effect of natural organic matter on powdered activated carbon adsorption of trace contaminants: characteristics and mechanism of competitive adsorption
KAY HOWARD and TIMOTHY J.J. INGLIS	4425	The effect of free chlorine on *Burkholderia pseudomallei* in potable water
ANDERS SVENSON, ANN-SOFIE ALLARD and MATS EK	4433	Removal of estrogenicity in Swedish municipal sewage treatment plants
JIANMIN WANG, C.P. HUANG and D PIRESTANI	4444	Interactions of silver with wastewater constituents
YUANSONG WEI, RENZE T. VAN HOUTEN, ARJAN R. BORGER, DICK H. EIKELBOOM and YAOBO FAN	4453	Minimization of excess sludge production for biological wastewater treatment
JUKKA HORPPILA and LEENA NURMINEN	4468	Effects of submerged macrophytes on sediment resuspension and internal phosphorus loading in Lake Hiidenvesi (southern Finland)
ALEX T. CHOW, KENNETH K. TANJI and SUDUAN GAO	4475	Production of dissolved organic carbon (DOC) and trihalomethane (THM) precursor from peat soils
GUANGYU YAN and THIRUVENKATACHARI VIRARAGHAVAN	4486	Heavy-metal removal from aqueous solution by fungus *Mucor rouxii*
JIHYEON SONG, JAVIER RAMIREZ and KERRY A. KINNEY	4497	Nitrogen utilization in a vapor-phase biofilter
ZHENZHONG ZHU, ZAIJUN LI, ZHUOLI HAO and JIAN CHEN	4506	Direct spectrophotometric determination of alkylphenol polyethoxylate nonionic surfactants in wastewater
C.Y. HU, S.L. LO and W.H. KUAN	4513	Effects of co-existing anions on fluoride removal in electrocoagulation (EC) process using aluminum electrodes
BEAT MÜLLER, YING WANG, MARIA DITTRICH and BERNHARD WEHRLI	4524	Influence of organic carbon decomposition on calcite dissolution in surficial sediments of a freshwater lake
MANO SIVAGANESAN, EUGENE W. RICE and BENITO J. MARIÑAS	4533	A Bayesian method of estimating kinetic parameters for the inactivation of *Cryptosporidium parvum* oocysts with chlorine dioxide and ozone
MARIA X. LOUKIDOU, KOSTAS A. MATIS, ANASTASIOS I. ZOUBOULIS and MARIA LIAKOPOULOU-KYRIAKIDOU	4544	Removal of As(V) from wastewaters by chemically modified fungal biomass

Number 19

Full papers

WILLIAM B. ANDERSON, COLIN I. MAYFIELD, D. GEORGE DIXON and PETER M. HUCK	4553	Endotoxin inactivation by selected drinking water treatment oxidants
HARIKLIA N. GAVALA, UMUR YENAL, IOANNIS V. SKIADAS, PETER WESTERMANN and BIRGITTE K. AHRING	4561	Mesophilic and thermophilic anaerobic digestion of primary and secondary sludge. Effect of pre-treatment at elevated temperature
RONALD GEHR, MONIKA WAGNER, PRIYA VEERASUBRAMANIAN and PIERRE PAYMENT	4573	Disinfection efficiency of peracetic acid, UV and ozone after enhanced primary treatment of municipal wastewater

O. R. Zimmo, N. P. van der Steen and H. J. Gijzen	4587	Comparison of ammonia volatilisation rates in algae and duckweed-based waste stabilisation ponds treating domestic wastewater
D. S. Baldwin, J. Whittington and R. Oliver	4595	Temporal variability of dissolved P speciation in a eutrophic reservoir—implications for predicating algal growth
Meea Kang, Hong Chen, Yuko Sato, Tasuku Kamei and Yasumoto Magara	4599	Rapid and economical indicator for evaluating arsenic removal with minimum aluminum residual during coagulation process
Pawinee Chaiprasert, Worakrit Suvajittanont, Benjaphon Suraraksa, Morakot Tanticharoen and Sakarindr Bhumiratana	4605	Nylon fibers as supporting media in anaerobic hybrid reactors: it's effects on system's performance and microbial distribution
Juan Bellas, Ricardo Beiras and Elsa Vázquez	4613	A standardisation of *Ciona intestinalis* (Chordata, Ascidiacea) embryo-larval bioassay for ecotoxicological studies
Li-Jyur Tsai, Kuang-Chung Yu, Shu-Fen Chen, Pei-Yi Kung, Chia-Yuan Chang and Chao-Hsien Lin	4623	Partitioning variation of heavy metals in contaminated river sediment via bioleaching: effect of sulfur added to total solids ratio
Se-Han Lee, Wataru Nishijima, Chul-Hee Lee and Mitsumasa Okada	4631	Calcium accumulation on activated carbon deteriorates synthetic organic chemicals adsorption
Md. Pauzi Abdullah, C.H. Yew and Mohamad Salleh bin Ramli	4637	Formation, modeling and validation of trihalomethanes (THM) in Malaysian drinking water: a case study in the districts of Tampin, Negeri Sembilan and Sabak Bernam, Selangor, Malaysia
Shinwoo Yang and Kenneth Carlson	4645	Evolution of antibiotic occurrence in a river through pristine, urban and agricultural landscapes
Jie Chi, Guo-Lan Huang, Xin Lu, De-Gang Ma and Yuan Wang	4657	DEHP enrichment in the surface microlayer of a small eutrophic lake
Sung-Kil Park and Angela R. Bielefeldt	4663	Aqueous chemistry and interactive effects on non-ionic surfactant and pentachlorophenol sorption to soil
Mokhlesur Rahman, Fariba Amiri and Eckhard Worch	4673	Application of the mass transfer model for describing nonequilibrium transport of HOCs through natural geosorbents
Emil Chibowski, Lucyna Hoysz and Aleksandra Szcześ	4685	Adhesion of in situ precipitated calcium carbonate in the presence and absence of magnetic field in quiescent conditions on different solid surfaces
J. Świetlik, U. Raczyk-Stanisawiak, S. Biozor, W. Ilecki and J. Nawrocki	4693	Reduction of ClO_2 demand by ClO_2 oxidation and subsequent GAC filtration
D. Hot, O. Legeay, J. Jacques, C. Gantzer, Y. Caudrelier, K. Guyard, M. Lange and L. Andréoletti	4703	Detection of somatic phages, infectious enteroviruses and enterovirus genomes as indicators of human enteric viral pollution in surface water
Junqiang Sang, Xihui Zhang, Lingzhi Li and Zhansheng Wang	4711	Improvement of organics removal by bio-ceramic filtration of raw water with addition of phosphorus
Barton R. Faulkner, William G. Lyon, Faruque A. Khan and Sandip Chattopadhyay	4719	Modeling leaching of viruses by the Monte Carlo method
Charles M. Sharpless, Margaret A. Page and Karl G. Linden	4730	Impact of hydrogen peroxide on nitrite formation during UV disinfection
Kaushik Biswas, Stephen Craik, Daniel W. Smith and Miodrag Belosevic	4737	Synergistic inactivation of *Cryptosporidium parvum* using ozone followed by free chlorine in natural water

THOMAS HOLST, NIELS O. G. JØRGENSEN, CLAUS JØRGENSEN and ANDERS JOHANSEN — 4748 — Degradation of microcystin in sediments at oxic and anoxic, denitrifying conditions

CHARLES W. KNAPP, DAVID W. GRAHAM, GINA BERARDESCO, FRANK DENOYELLES JR, BEN J. CUTAK and CYNTHIA K. LARIVE — 4761 — Nutrient level, microbial activity, and alachlor transformation in aerobic aquatic systems

CHOONG JEON and WOLFGANG H. HÖLL — 4770 — Chemical modification of chitosan and equilibrium study for mercury ion removal

XIAO-YAN LI and HIU PING CHU — 4781 — Membrane bioreactor for the drinking water treatment of polluted surface water supplies

LIZHONG ZHU, KUN YANG, BAOFENG LOU and BIHAO YUAN — 4792 — A multi-component statistic analysis for the influence of sediment/soil composition on the sorption of a nonionic surfactant (Triton X-100) onto natural sediments/soils

J. Y. HU, S. L. ONG, J. H. SHAN, J. B. KANG and W. J. NG — 4801 — Treatability of organic fractions derived from secondary effluent by reverse osmosis membrane

Technical note

NATHALIE GARREC, LAURENT SUTRA, FRANÇOISE PICARD and ANNE-MARIE POURCHER — 4810 — Development of a protocol for the isolation of *Listeria monocytogenes* from sludge

Number 20

WENDY A.M. MCMINN, JAMES KEOWN, STEPHEN J. ALLEN and MICHAEL G. BURNETT — 4815 — Effect of freeze-thaw process on partitioning of contaminants in ferric precipitate

F. JAVIER RIVAS, FERNANDO BELTRÁN, OLGA GIMENO, BENITO ACEDO and FÁTIMA CARVALHO — 4823 — Stabilized leachates: ozone-activated carbon treatment and kinetics

JIANMIN WANG, C.P. HUANG and HERBERT E. ALLEN — 4835 — Modeling heavy metal uptake by sludge particulates in the presence of dissolved organic matter

BERND W. BRANDT, INGEBORG M.M. VAN LEEUWEN and SEBASTIAAN A.L.M. KOOIJMAN — 4843 — A general model for multiple substrate biodegradation. Application to co-metabolism of structurally non-analogous compounds

E. ÁLVAREZ-AYUSO, A. GARCÍA-SÁNCHEZ and X. QUEROL — 4855 — Purification of metal electroplating waste waters using zeolites

QILIN LI, VERNON L. SNOEYINK, BENITO J. MARIÑAS and CARLOS CAMPOS — 4863 — Pore blockage effect of NOM on atrazine adsorption kinetics of PAC: the roles of PAC pore size distribution and NOM molecular weight

NANCY R. SMITH, ZHONGTANG YU and WILLIAM W. MOHN — 4873 — Stability of the bacterial community in a pulp mill effluent treatment system during normal operation and a system shutdown

C.M. KAO, Y.L. CHEN, S.C. CHEN, T.Y. YEH and W.S. WU — 4885 — Enhanced PCE dechlorination by biobarrier systems under different redox conditions

F. VEGLIÒ, F. BEOLCHINI and M. PRISCIANDARO — 4895 — Sorption of copper by olive mill residues

RENAUD SUBLET, MARIE-ODILE SIMONNOT, ALAIN BOIREAU and MICHEL SARDIN — 4904 — Selection of an adsorbent for lead removal from drinking water by a point-of-use treatment device

M. HORSFALL JR and A.A. ABIA — 4913 — Sorption of cadmium(II) and zinc(II) ions from aqueous solutions by cassava waste biomass (*Manihot sculenta* Cranz)

Hideo Utsumi, Youn-Hee Han and Kazuhiro Ichikawa	4924	A kinetic study of 3-chlorophenol enhanced hydroxyl radical generation during ozonation
X. Fan, D.J. Parker and M.D. Smith	4929	Adsorption kinetics of fluoride on low cost materials
Pavel Janoš, Hana Buchtová and Milena Rýznarová	4938	Sorption of dyes from aqueous solutions onto fly ash
Kedar Nath Ghimire, Katsutoshi Inoue, Hiroki Yamaguchi, Kenjiro Makino and Tohru Miyajima	4945	Adsorptive separation of arsenate and arsenite anions from aqueous medium by using orange waste
Gilles Roy, Philippe de Donato, Tatiana Görner and Odile Barres	4954	Study of tropaeolin degradation by iron—proposition of a reaction mechanism
Satoshi Tsuneda, Tatsuo Nagano, Tatsuhiko Hoshino, Yoshihiro Ejiri, Naohiro Noda and Akira Hirata	4965	Characterization of nitrifying granules produced in an aerobic upflow fluidized bed reactor
Graciela Palma, Juanita Freer and Jaime Baeza	4974	Removal of metal ions by modified *Pinus radiata* bark and tannins from water solutions
Eakalak Khan, Roger W. Babcock, Santi Jongskul, Frederick A. Devadason and Seree Tuprakay	4981	Determination of biodegradable dissolved organic carbon using entrapped mixed microbial cells
	I	Volume Contents, Author Index, and Keyword Index